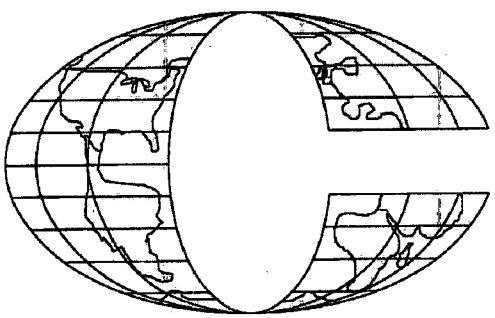
Prepared for

Interim Pedricktown Site Group

April 2007 Groundwater Monitoring Report

NL Industries Superfund Site
Pedricktown, New Jersey

Original: September 2007
Revised: May 2008



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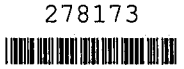

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1. INTRODUCTION

On behalf of the Interim Pedricktown Site Group (Group), CSI Environmental, LLC (CSI) prepared the following report to document the results of the groundwater monitoring activities performed in April 2007 at the NL Industries Superfund Site in Pedricktown, New Jersey. CSI performed the groundwater monitoring activities in accordance with the December 2006 *Groundwater Monitoring Plan for the NL Industries Superfund Site,* prepared by CSI and approved by the United States Environmental Protection Agency (EPA) in a letter dated 11 January 2007. The activities included abandoning one damaged monitoring well (OD) and sampling 29 monitoring wells. The results of the groundwater monitoring activities performed in April 2007 are summarized herein. A location plan is provided as Figure 1.

Pursuant to a Consent Decree issued by EPA, the Group conducted remedial activities for soil and sediment, which were completed in May 2003. The remedial action (RA) included the excavation, stabilization and off-site disposal of soil, sediment and debris that contained lead at concentrations above the remedial action objective. Review of data obtained prior to the performance of the remedy for soil and sediment indicated that significant improvement in groundwater quality had occurred without active groundwater remediation. The groundwater monitoring data collected in April 2007 and provided in this report also indicate that groundwater quality continues to improve without active groundwater remediation. Therefore, the Group and EPA are currently re-evaluating the EPA-specified remedy for groundwater as part of a focused feasibility study.

2. BACKGROUND

The NL Industries site is located on Pennsgrove-Pedricktown Road in Pedricktown, New Jersey. The site was formerly used for the reclamation of lead. Groundwater quality in three zones (the unconfined Cape May formation, first semi-confined zone of the Raritan formation, and second confined zone of the Raritan formation) has been evaluated periodically since 1983. Elevated levels of site related constituents in groundwater were limited in extent to the uppermost zone, the unconfined aquifer. Both historical and recent data consistently show that groundwater quality has improved significantly.

2.1 Previous Groundwater Evaluations

Groundwater quality improved between 1983 and 1998 as documented in *Phase I Groundwater Evaluation Technical Memorandum* [GeoSyntec Consultants, 1997] and *Phase II Groundwater Evaluation Technical Memorandum* [GeoSyntec Consultants, 2000]. Furthermore, residential wells were previously sampled and were determined to have been unaffected by site-related constituents. Even though lead was detected in several tap water samples, it was not site-related. Additionally, the results of an aquifer test indicated that attempting to extract metals from the subsurface by pumping groundwater would be ineffective.

GeoSyntec Consultants stated that the mechanisms responsible for natural improvement in groundwater quality were effective and indicated that the pump-and-treat remedy previously specified for the site by the EPA would not be effective and was not necessary. However, GeoSyntec recommended that consideration be given to evaluating possible remediation alternatives, including monitored natural attenuation and reagent injection to enhance the removal of constituents from groundwater in combination with monitoring.

CSI performed the most recent groundwater monitoring events in April 2007 and January 2004. Review of data from both events reveals continuing improvement in groundwater quality. In addition, CSI sampled drinking water from the residences along Route 130 in January 2004, June 2006 and during the most recent April 2007 event. During each of these monitoring events lead and cadmium concentrations in the residential water samples were either not detected or were significantly below the applicable New Jersey drinking water standards.

2.2 Monitoring Well Network

During the performance of the RA for soil and sediment, several groundwater-monitoring wells were accidentally damaged or destroyed. Two monitoring wells,

MW-29 and MW-30, were damaged and abandoned during the RA and two monitoring wells, KS and KD, were destroyed. Several monitoring wells (i.e. HS, IS, JD, RS, and T-C) were also damaged. With EPA concurrence, wells KS, KD and 30 were replaced prior to the January 2004 groundwater-monitoring event. The well installation and abandonment activities are fully documented in the *Groundwater Monitoring Report* prepared by CSI and dated April 2004. Replacement well identifications include "R" to signify that they are replacement wells (i.e. KSR). During the January 2004 groundwater-monitoring event it was discovered that well OD was compromised. Damaged monitoring well OD was abandoned in April 2007.

3. TECHNICAL APPROACH

CSI monitored groundwater quality during the April 2007 event using sampling and analytical techniques that were consistent with those used at the site in January 2004. The procedures are described in the December 2006 *Groundwater Monitoring Plan for the NL Industries Superfund Site,* prepared by CSI and approved by the United States Environmental Protection Agency (EPA) in a letter dated 11 January 2007. CSI's goal was to obtain samples of groundwater that were representative of aquifer conditions using low-impact techniques described in *Low-Flow (Minimal Draw Down) Ground-Water Sampling Procedures* [Puls and Barcelona, 1998]. Groundwater monitoring activities are described below.

3.1 Well Abandonment

It was discovered during the January 2004 sampling event that the well casing in well OD was damaged below the land surface and no longer useful for sampling. Therefore a recommendation was made to abandon this well in the January 2004 letter report. Well OD was properly abandoned by a licensed well driller from A.C. Schultes Inc during the April 2007 sampling event. The well abandonment report is included as Appendix A to this report.

3.2 Groundwater Sampling

CSI sampled groundwater in accordance with the December 2006 *Groundwater Monitoring Plan for the NL Industries Superfund Site,* prepared by CSI and approved by the United States Environmental Protection Agency (EPA) in a letter dated 11 January 2007. CSI (i) measured the depth to groundwater in each well; (ii) monitored field parameters; (iii) obtained groundwater samples; (iv) submitted the samples for laboratory analysis for volatile organic compounds (VOCs), total lead and cadmium, and dissolved lead and cadmium; and (v) validated the laboratory data. For comparison of data, CSI obtained groundwater samples from the monitoring wells last sampled in January 2004. In addition, at the request of the EPA, wells 13-17 situated between the NL site and residences located along Route 130 were also sampled. Monitoring wells that were sampled during the April 2007 event are identified in Table 1. CSI evaluated the groundwater quality at the selected wells using field parameters to preliminarily evaluate whether or not the groundwater sample was representative of aquifer conditions.

Prior to sampling, CSI measured water levels at each well, these data are tabulated on Table 1 and the shallow unconfined aquifer data are depicted on Figure 2. CSI used clean Pro-Active Industries™ submersible pumps to perform low-flow groundwater sampling. Each pump was set at the desired level within the screened

portion of each well. Groundwater extraction rates were maintained continually using a surface-mounted controller. Low flow rates were maintained to avoid excessive draw down in each well. CSI used portable equipment to monitor dissolved oxygen (DO), turbidity, specific conductance, oxidation-reduction potential (ORP), pH and temperature. CSI monitored the water quality parameters periodically while purging each well. After the measured values of the parameters stabilized, CSI obtained the groundwater sample. The data collected from measurements performed at the site during well purging are summarized on Table 2.

CSI also obtained samples of tap water from selected residences/commercial properties along U.S. Route 130 (Figure 1). The water quality at the Delaware River Land Company LLC commercial property (201) and the Butcher (189), Kucowski-Ahamd (191), Cruz (195), Eyler (167), Gates (197), and Sopko (165) residences were evaluated. Where the owner granted access, CSI obtained water samples from taps located in piping prior to any water treatment systems. Documentation of these results was provided to the EPA under separate cover.

3.3 Field and Laboratory Analyses

CSI measured water quality parameters (Table 2) in the field to preliminarily evaluate whether or not a groundwater sample was likely to be representative of ambient groundwater. Excess turbidity or wide variations in pH, specific conductance, dissolved oxygen or ORP often indicate abnormalities such as surface water intrusion, or failures in well casing and gravel filter. If obvious abnormalities in field parameter measurements were noted, or if the turbidity of a sample was greater than 10 NTU, then CSI considered the sample to be possibly compromised. If the turbidity exceeded 40 NTUs, then the sample was not considered to be representative of aquifer conditions and the resultant data were qualified. The water quality data from field measurements are summarized on Table 2.

CSI contracted Chemtech of Mountainside, New Jersey to perform chemical analyses of groundwater samples. The laboratory analyzed the samples for total lead, dissolved lead, total cadmium, and dissolved cadmium using EPA method ILM04.1 and VOCs using EPA method OLC03.2. The instrument detection limits for lead and cadmium was as specified by the method. Samples were preserved in accordance with the appropriate EPA method. Samples analyzed for total lead and total cadmium were not filtered. Samples analyzed for dissolved lead and dissolved cadmium were filtered in the field using 0.45 micron in line filters. The laboratory data are summarized on Table 3.

3.4 QA/QC and Data Validation

Quality assurance/quality control (QA/QC) procedures were generally consistent with those described in the *Quality Assurance Project Plan* included in the *Groundwater Monitoring Plan* (CSI, 2006). Upon receipt of laboratory data, CSI validated the data using EPA standard operating procedures HW 13, Revision 3.0, July 2001 for low-level organics in groundwater and HW 2, Revision 13, September 2005 for metals in groundwater. Data validation procedures verified that the data are acceptable for use with the qualifications noted below. The validated data are included as Appendix B.

The following is a summary of the validation reports contained in Appendix B.

Organic Data

- The holding times were met for all samples.
- The surrogate recovery criteria were met for all samples, with the exception of one sample in each set. This anomaly did not necessitate data qualification.
- The matrix spike/spike duplicate (MS/MSD) results met all QC criteria. No data qualifiers were applied based on MS/MSD results.
- Blank contamination of methylene chloride was found in multiple method, rinsate and trip blanks associated with the data sets. Therefore, all methylene chloride results have been flagged as "U" non-detect. Although acetone and toluene were also found in blank samples, no data qualifiers were applied as a result of these detections.
- All gas chromatograph/mass spectrometer (GC/MS) bromofluorobenzene (BFB) tuning criteria associated with these sample analyses met QC criteria.
- The response factor criteria were met for all target analytes in each of the continuing calibration standards associated with these data sets.
- All percent relative standard deviation (RSD) and percent difference (%D) criteria in the calibration curve standard and analysis met QC criteria.
- All internal standard area counts and retention time shifts met QC criteria in each of the samples associated with these data sets.
- Target compound analyses on the GC/MS based on the analyte's relative retention time (RRT) and by comparison to the ion spectra obtained from known standards resulted in the qualification of all methylene chloride results. This is based on the detection of methylene chloride in multiple blank samples.
- Field duplicate analysis could not be conducted for the organic data based on the lack of organic compound detections in groundwater and duplicate samples.

The organic data met all QC criteria with the exception of the detection of methylene chloride in multiple blank samples. Methylene chloride is a common laboratory contaminant and these results have all been qualified "U' based on the data validation procedures used.

Inorganic Data

- All of the samples within these data sets were prepared/digested and analyzed within the proper holding time.
- The percent recovery of cadmium and lead met QC criteria in all continuing calibration curve standards associated with this data set.
- The recovery of lead and cadmium in all three contract required detection limit (CRDL) standards for data sets Y2435 and Y2448 met all QC criteria. The recovery of lead and cadmium for some of the CRDL standards associated with data sets Y2469, Y2485 and Y2486 did not meet QC criteria. Therefore, some positive cadmium and lead detections were qualified "J" estimated, as further detailed in Appendix B.
- All interference check standard (ICS) recoveries for data sets Y2486, Y2435 and Y2448 met QC criteria. Some of the ICS recoveries for data sets Y2469 and Y2485did not meet QC criteria, positive lead results in these data sets have been qualified "J" estimated.
- The majority of the matrix spike analyses met QC criteria with the exceptions of: the recovery of dissolved cadmium for sample set Y2486 and the recovery of dissolved lead in sample set Y2485. The affected results were flagged "N" as prescribed by the method.
- Post digestion spike analysis was not required nor performed for any inorganic data sets.
- No additional data qualifiers were applied based on the duplicate sample analysis.
- All inductively coupled plasma (ICP) serial dilution analyses met QC criteria with the exception of dissolved lead data in sample set Y2485. The dissolved lead data in sample set Y2485 were qualified with an "E" as required by the method.
- The majority of the blank analyses for total and dissolved lead and cadmium were free from contamination with the exception of the following:
    - Blank contamination - total and dissolved cadmium in preparation blank for data set Y2469, action – cadmium negated in all samples when the concentration is greater than the method detection limit (MDL) and less than the contract required detection limit (CRQL).
    - Blank contamination – total and dissolved cadmium in preparation blank for sample set Y2485, action – no action necessary based on previous qualification of data.

  - Blank contamination – total and dissolved cadmium in preparation blank for data set Y2486, action - no action necessary based on previous qualification of data.
  - Blank contamination – dissolved cadmium in rinsate blank for data set Y2469, action – cadmium detected between the MDL and the CRQL in this data set have been negated and qualified "U".
- The laboratory control sample analyses met QC criteria for both cadmium and lead in all data sets.
- No data were qualified based on the results of field duplicate sample data.
- All instrument QC data required by the method was conducted properly.

The inorganic data sets contained some data validation issues associated with CRDL standard detection, ICS recoveries, matrix spike recovery, ICP serial dilution and blank contamination. These QC issues have resulted in the qualification of some of the cadmium and lead data with "U" and "J" flags. These qualified data are not anticipated to affect the overall data assessment.

4. RESULTS AND DISCUSSION

The results obtained from the April 2007 groundwater-sampling event are summarized below. The validated laboratory data are provided in Appendix B and are summarized on Table 3. Review of the data reveals that the continuing trend of improving groundwater quality has been confirmed.

4.1 Water Level Measurement

The water levels measured in the monitoring wells in April 2007 are provided in Table 1. A water table diagram and the direction of groundwater flow derived from the water level data are shown on Figure 2. Based on measured water levels, groundwater flows north and west across the site in the shallow zone, which is consistent with previous findings. The inclusion of monitoring wells 13 through 17 into the water level analysis provided a clearer understanding of groundwater flow. The initial data suggests that there are surface water features and a groundwater divide between the site and residential properties located along Route 130 that may prevent shallow groundwater from flowing from the site to the properties along Route 130. As shown on Figure 2, shallow groundwater generally flows toward the West Stream and toward the surface water features located between the NL landfill and residential properties located along Route 130. Additional data will need to be collected to confirm the presence and possible affect of the potential groundwater divide.

4.2 Field Parameters

The results obtained from measurement of field parameters are presented on Table 2. As was previously established in the April 2004 *Groundwater Monitoring Report* [CSI, 2004], and the Phase I and II Technical Memorandum Reports [Geosyntec, 1997 and 2000], there are correlations between the detection of lead and cadmium in groundwater samples and the pH measured during sampling. Where pH is low, the metals concentrations tend to be higher. The variations in groundwater pH in the shallow and deep unconfined aquifers are shown in Figures 3 and 4, respectively. A review of these figures demonstrates that the lowest groundwater pH value in the shallow aquifer is found at well OS and the lowest groundwater pH value in the deep unconfined aquifer is found at well KDR. Wells OS and KDR are located near the former battery breaker used at the site.

4.3 Volatile Organic Compounds

The concentrations of VOCs in the groundwater samples are summarized in Table 3. VOCs were detected at low concentrations in groundwater samples from only four of the wells sampled. All of the VOCs were detected at concentrations below applicable health-based standards and criteria, with the exception of tetrachloroethene

(PCE) and vinyl chloride. PCE was apparently detected in the groundwater sample obtained from MW-11 at a concentration of 1.1 parts per billion (ppb), slightly exceeding the health based standard of 1 ppb. The recently detected concentration of PCE is approximately half the concentration detected in January 2004. Vinyl chloride was detected at low concentrations of 9.3 and 4.9 ppb in the groundwater samples obtained from wells MW-12 and MW-24, respectively. MW-12 and MW-24 are screened in the first confined aquifer. Both wells are located at the eastern and hydraulically up gradient edge of the site, adjacent to property used by the former Tomah Division of Exxon. The Exxon property is listed in the NJDEP *Known Contaminated Sites in New Jersey* for Salem County, seventh edition (Spring 2006) and is also mentioned along with B.F. Goodrich in the ROD for the Site as a neighboring industrial facility in the vicinity of these wells. VOCs are known to have been released by others into the environment at the former Tomah Division of Exxon property and are the likely sources of vinyl choride.

4.4 Inorganic Constituents

As was previously documented, lead and cadmium have historically been detected at some of the groundwater sample locations at the site (Table 3). Consistent with historical data, the higher concentrations of lead and cadmium were detected in the central portion of the site. The distributions of lead in groundwater in the shallow and deep unconfined aquifers (UAs) are shown in Figures 5 and 6, respectively. The distributions of cadmium in groundwater in the shallow and deep UAs are shown in Figures 7 and 8, respectively.

The UA has historically been subdivided into two zones; the shallow and deep zones. Based on information provided in *Final Feasibility Study NL Industries, Inc. Site, Pedricktown, New Jersey,* the terms shallow and deep relate to screened intervals of wells and not to geologic materials [O'Brien & Gere, 1993]. Where two wells were as pairs, the shallower one was labeled shallow and the deeper of the pair was labeled deep.

For purposes of evaluation herein, where a well is not installed as part of a pair it is grouped with either shallow or deep wells based on screen depth. A well is defined as a shallow well if the top of the screen interval is at or above mean sea level (see Table 1). Wells 12 and 24 were installed in the first confined aquifer and well 13 is installed in the second confined aquifer.

The former distribution of lead and cadmium in the UA documented at the site is shown in the figures provided in Appendix C. A comparison of Figures 5 through 8 with the respective figure in Appendix C for lead and cadmium reveals that the zones of lead and cadmium impacts remain isolated on the site and have decreased in area. The

presence of lead in the deep UA has essentially decreased to non-detect as shown on Figure 6. There was only one detection of lead in the deep UA at well SD (31 ug/L).

Although lead was apparently detected in the samples obtained from wells ND and MW-34, they are spurious artifacts related to sampling. The samples were turbid, which is believed to have caused false positive results. The lack of detection of dissolved lead in the samples is a more reliable indicator of actual groundwater quality than the results obtained from turbid samples.

The trend of improving groundwater quality is also evident for total lead data obtained from the shallow, UA as shown on Figure 5. Discounting spurious data related to turbidity, lead was only detected in the shallow UA in the samples obtained from wells OS (388 ug/L), SS (82.9 ug/L) and 27 (6.2 ug/L). These data are also consistent with historical data and further document the trend of improving groundwater quality.

The cadmium results shown on Figures 7 and 8 also reflect improved groundwater quality. The area of impact is smaller than previously measured and the frequency and concentrations of detections have also diminished. The greater concentrations of total cadmium are evident in the deep UA, with the highest concentrations centered northwest and in the vicinity of the former smelter foundation. These data are consistent with the locations of the higher historical cadmium detections (see Appendix C).

The January 2004 groundwater data are provided in Table 4 for comparison to the most recent data obtained from the Site. However, the 2004 data when assessed in conjunction with other data sets appears anomalous. The weather during that sampling period was bitter and it is possible that the sampling crew was rushed to avoid having sampling equipment and samples freeze. Also, because ambient temperatures were below freezing and hence well outside the optimal operating conditions for some of the equipment used in the field (e.g. Horiba U-10 water quality meter) it may be possible that some of the measurements taken in the field varied compared to other sampling events. Even though the temperature was well below freezing, the field personnel are not aware of any samples that froze.

The data obtained from the analysis of the samples taken in 2004 were inconsistent with data obtained both prior to 2004 and since. No single reason for the anomaly was apparent and CSI reported the data as received from the laboratory. Upon further evaluation and reflection, especially when considered in conjunction with data obtained since 2004, it became apparent that the 2004 data were anomalous. Therefore, those data were treated as possible outliers for presentation purposes as their analytical value, although not zero, is suspect.

Figures 4 and 5 from the *2004 Groundwater Monitoring Report* [CSI, 2004] presenting the apparent extents of lead and cadmium in 2004 have been included as Appendix D. These figures use the 2004 New Jersey Groundwater Quality Standards (NJGWQS) of 10 ug/L for lead and 4 ug/L for cadmium.

The extent of lead in groundwater at concentrations that exceed the current NJGWQS of 5 ug/L is presented in Appendix C, Figure C-1 for the 1983, 1988, 1998 and 2007 data sets. Figure C-1 clearly depicts a decreasing area of lead impacted groundwater. Using the areas shown and average groundwater concentrations an estimate of the mass of remaining lead in groundwater was calculated for 2007 (see Table C-1). The mass of lead remaining in groundwater in 1983 of 220 lbs and 1998 of 9 lbs were previously calculated by Geosyntec in the *Phase II Technical Memorandum*, 2000. Geosytec's actual method of calculation is not available, but using the above methodology, CSI has confirmed that 220 lbs of lead is a reasonable value (see Table C-1). Using these calculations it is estimated that the mass of lead in groundwater at the site decreased from approximately 220 lbs [Geosyntec, 2000] in 1983 to 1.2 lbs in 2007.

The extent of cadmium concentrations in groundwater that exceed the current NJGWQS of 4 ug/L is presented in Appendix C, Figure C-2 for the 1988, 1998 and 2007 data sets. Figure C-2 depicts a decreasing area of cadmium impacted groundwater. Using the area shown and average groundwater concentration an estimate of the mass of remaining cadmium in groundwater was calculated for 2007 (see Table C-2). The mass of cadmium remaining in groundwater in 1988 of 70 lbs and 1998 of 14 lbs were previously calculated by Geosyntec in the *Phase II Technical Memorandum*, 2000. As above, using the same method used for the 2007 data, CSI confirmed that the 1983 calculated mass of cadmium in groundwater is reasonable (see Table C-2). Using these calculations it is estimated that the mass of cadmium in groundwater at the site decreased from approximately 70 lbs in 1988 [Geosyntec, 2000] to 6.2 lbs in 2007.

The calculations presented above, and shown on Tables C-1 and C-2, were provided to show relative changes in the mass of lead and cadmium in groundwater and to show that mass was removed, not transported. Regardless of the method of calculation the data clearly indicate that the respective masses of lead and cadmium in groundwater have decreased over time and the areas impacted by lead and cadmium are decreasing. Without human intervention, groundwater quality has improved and there is no reason to believe that the trend will not continue.

4.5 Commercial/Residential Properties

The results of the April 2007 commercial/residential property water sampling were presented to the EPA in a letter report dated 31 July 2007. The results presented in that report are similar to those presented in April 2004 and in September 2006 and

indicate that the lead and cadmium concentrations in the residential water samples were either not detected or were significantly below the New Jersey drinking water standards.

As demonstrated previously, it is clear that site-related constituents have not impacted the water quality at the private properties. Salient information presented in the letter report includes the following.

- groundwater did not previously flow from the site beneath all of the private properties;
- the zones of impact at the site have not migrated, but have steadily been shrinking for more than twenty years;
- there is no consistency between detections of metals in water samples and the locations of the properties sampled; and,
- there is a decided lack of cadmium in the water samples obtained from the private properties, but cadmium is prevalent at the site.

The groundwater data obtained from MW-13 through MW-17 and groundwater flow information demonstrate that constituents in groundwater on the NL site have not affected the wells at the residential/commercial properties located along Route 130. Wells MW-13 through MW-17 are located between the NL site and the residential/commercial properties located along Route 130. None of the samples obtained from wells MW-13 through MW-17 contained total lead or cadmium. The wells are screened in all of the zones in which any potential constituent migration may have occurred. No evidence of migration of lead or cadmium in groundwater towards these properties has been identified. Furthermore, there is a potential groundwater flow divide between the site and the commercial/residential properties along Route 130 that may prevent constituent migration in groundwater from the site to the commercial/residential properties along Route 130. The possible groundwater divide will be further evaluated in future sampling events.

5. CONCLUSION AND RECOMMENDATIONS

CSI monitored groundwater quality at the NL Industries site and water quality at several nearby residential/commercial properties in January 2004 and most recently in April 2007. The results presented herein document the continued trend of improving groundwater quality that has been evident since 1983. Total lead and cadmium concentrations exceed EPA's performance standards in several locations. Also, the concentrations of the VOCs tetrachloroethane and vinyl chloride exceeded EPA's performance standards in samples obtained from three locations. Two of these locations are related to the neighboring Exxon property as discussed in Section 4.3 above. Previously, detections of lead, cadmium and VOCs were more prevalent than in the April 2007 sampling event. The data presented herein confirm that groundwater quality at the site has, and continues to; improve naturally and without active groundwater remediation. Therefore, the Group and EPA are currently re-evaluating the EPA-specified remedy for groundwater as part of a focused feasibility study.

CSI recommends that the Group continue to monitor groundwater quality on-site. CSI recommends that groundwater sampling be performed more regularly to aid in evaluating any data variability between sampling events. Annual monitoring will be adequate given the improving site conditions. CSI recommends that the reduced list of wells identified in Table 5 be used for future groundwater monitoring.

The EPA has requested that wells 13 through 17 and 33 and 34 be included in future groundwater monitoring events at the Site. . Well MW-34 has historically produced turbid samples while samples from nearby MW-33 are less turbid. CSI recommends that well 34 be abandoned based on the improving groundwater quality. A groundwater-monitoring network comprised of the wells identified in Table 5 will be sufficient to document site conditions and identify any potential migration of contaminants from the site. Based on favorable results CSI does not believe that further monitoring of water from the residential/commercial properties is warranted.

6. REFERENCES

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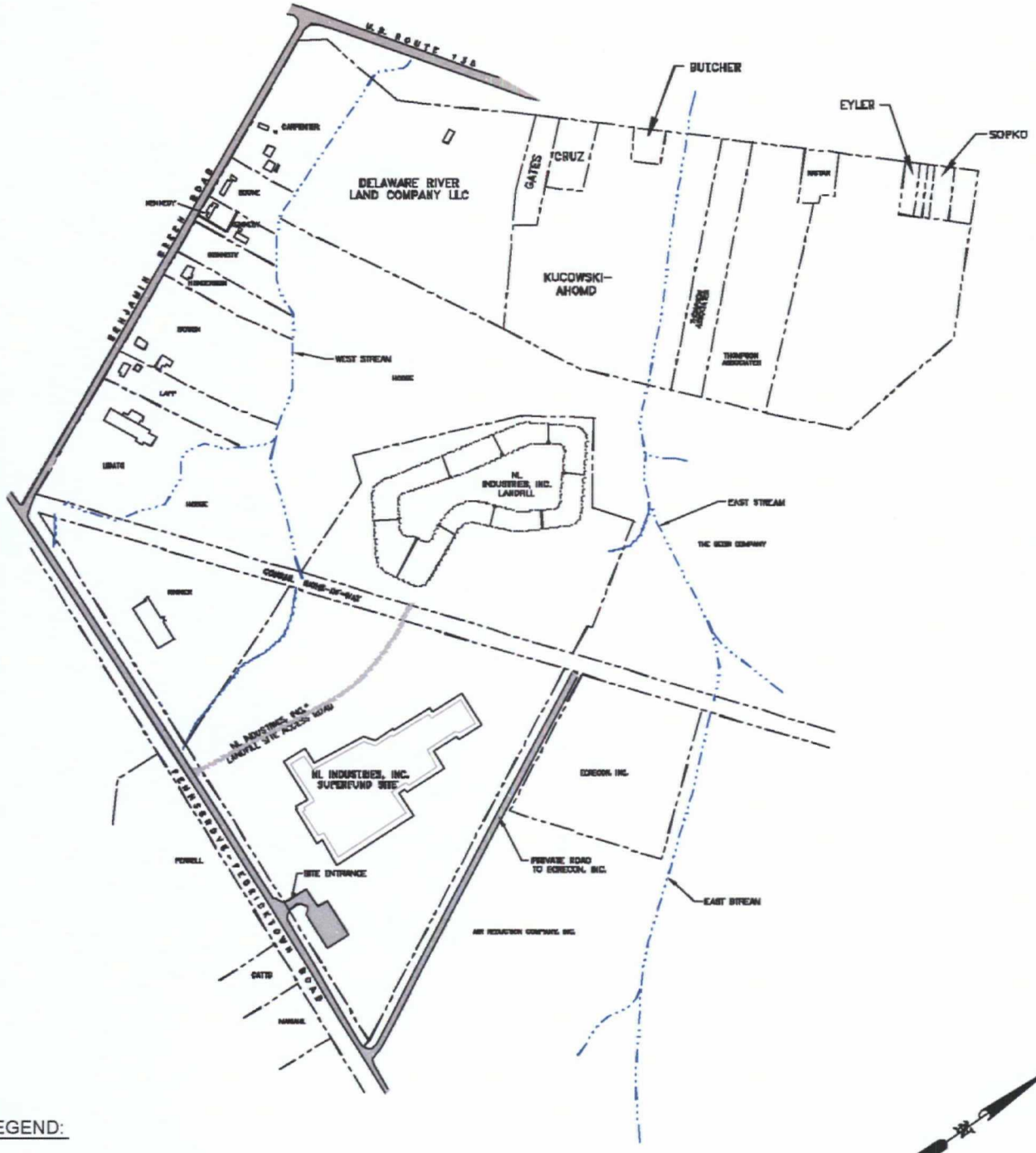
FIGURES



CSI Environmental, LLC 918 Chesapeake Ave. Annapolis, MD 21403 410-268-2765	Location Plan NL Industries Superfund Site Pedricktown, New Jersey	FIGURE 1

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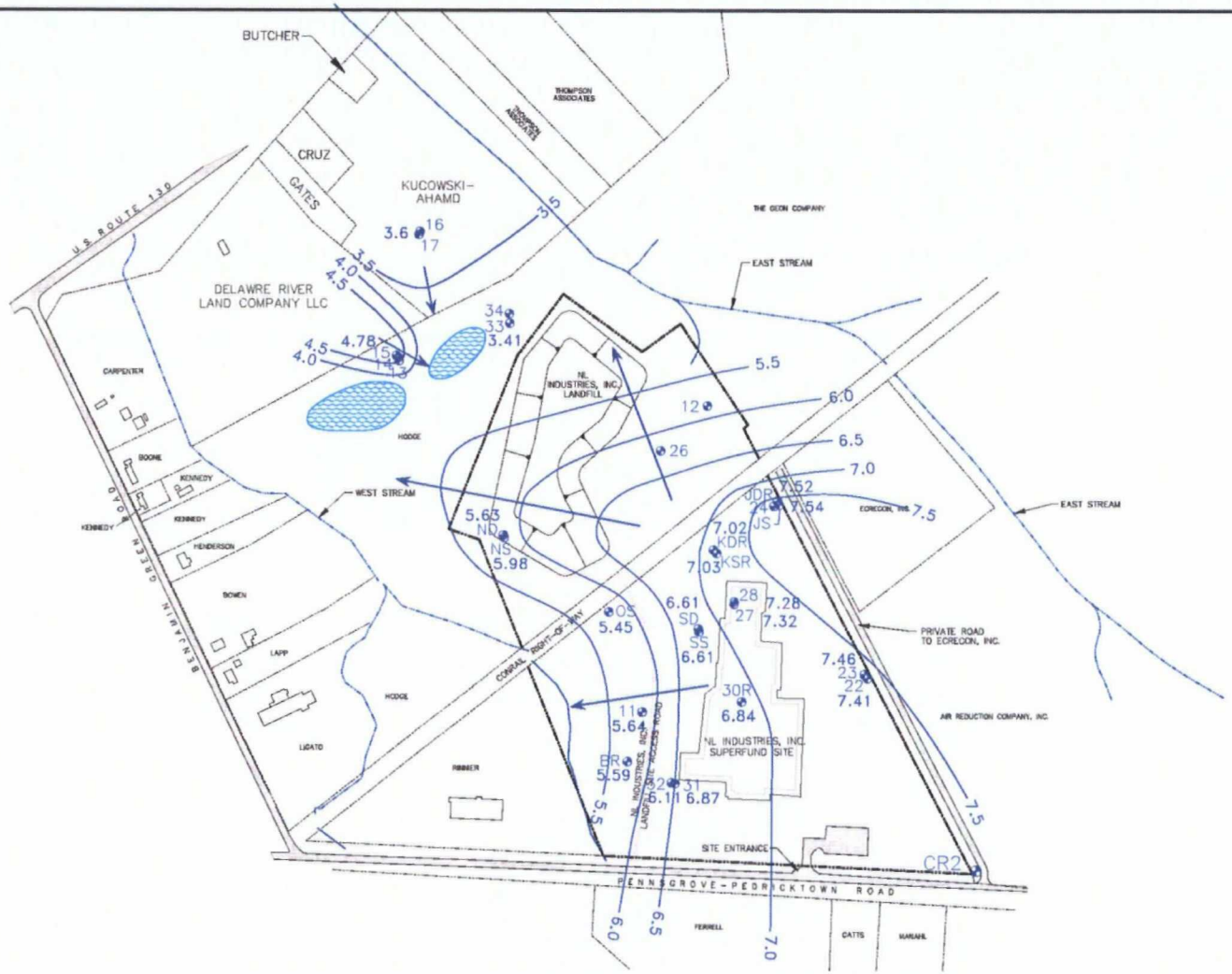

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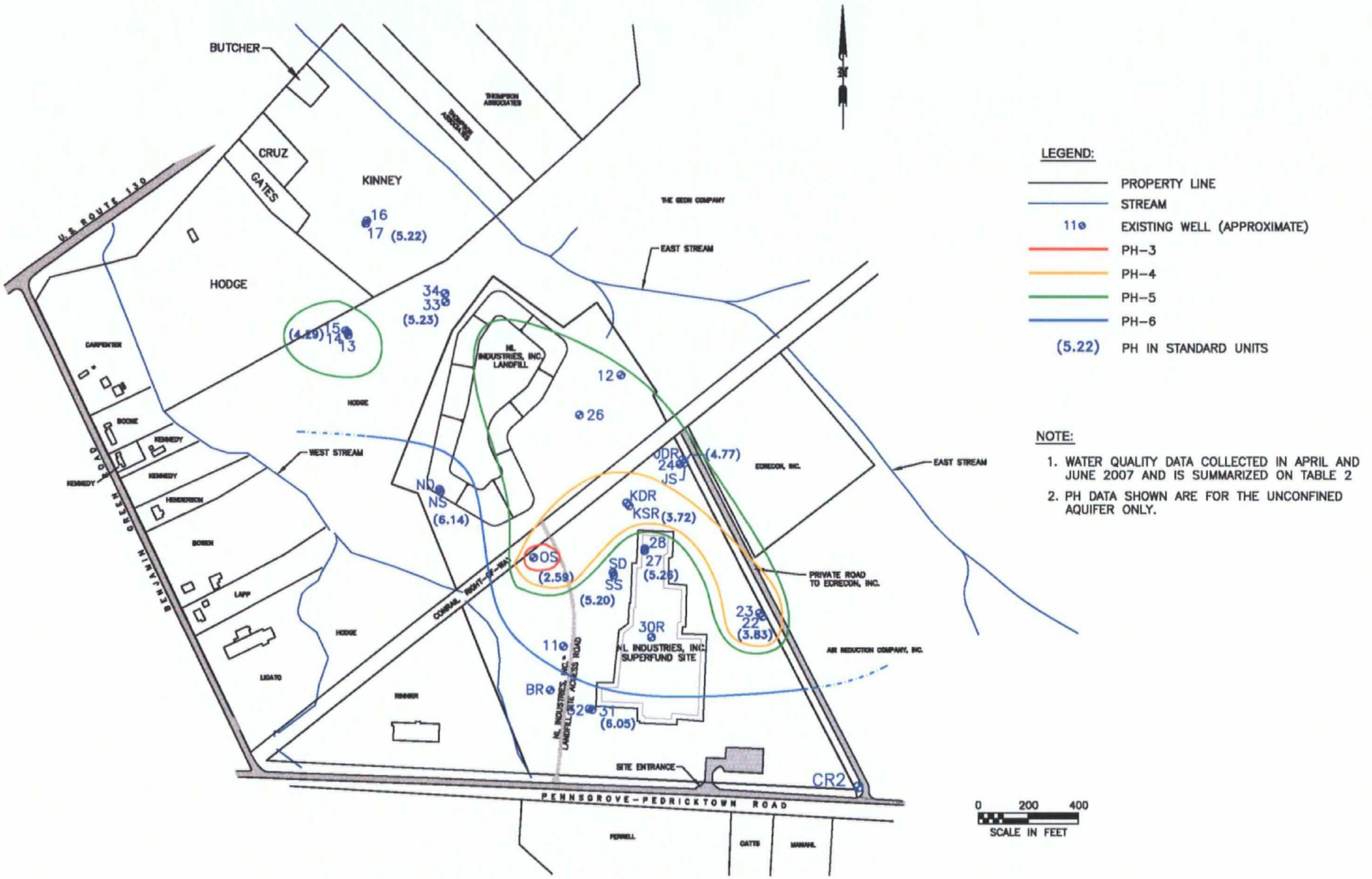
Groundwater Elevations and Inferred Flow Direction, April 2007

NL Industries Superfund Site
Pedricktown, New Jersey

FIGURE 2



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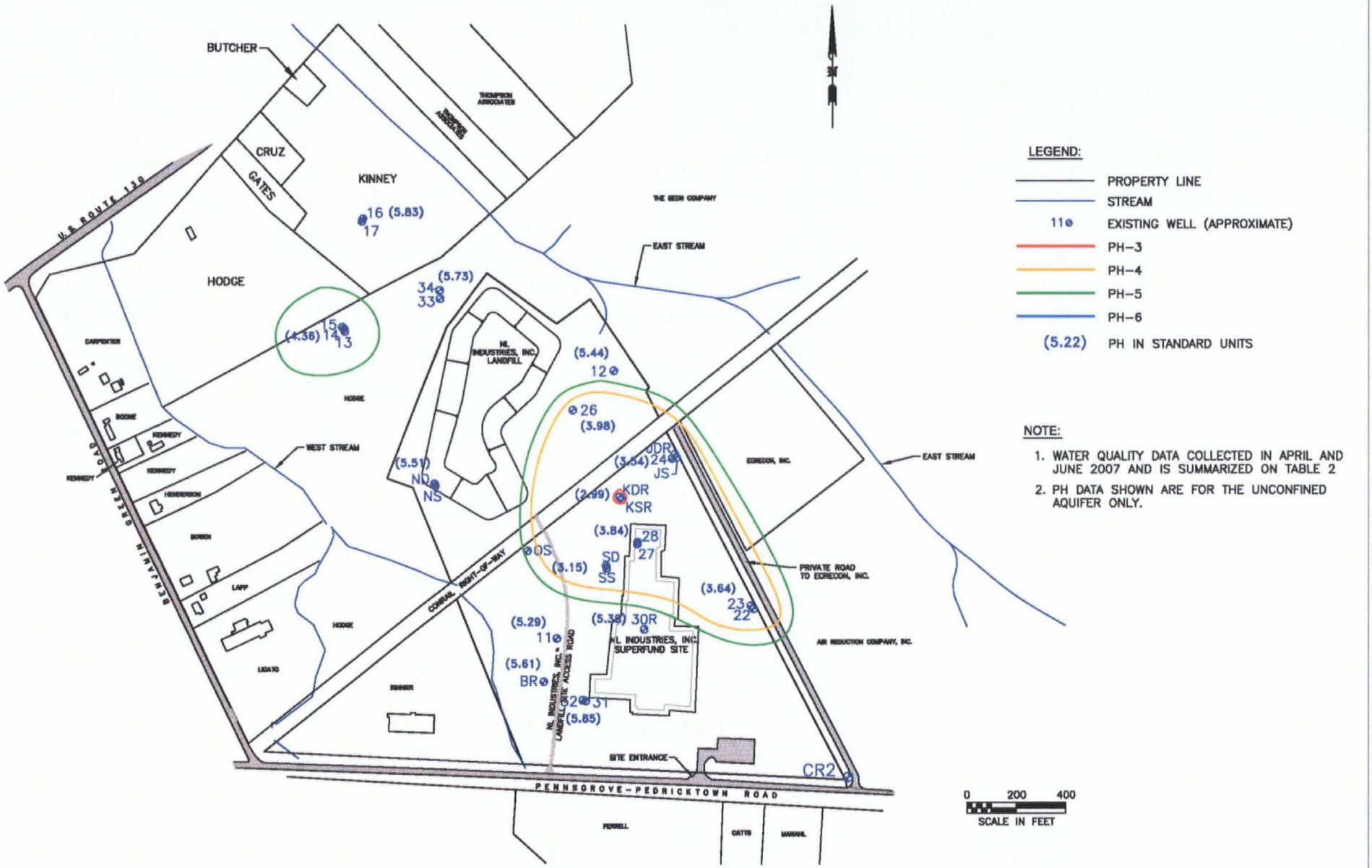
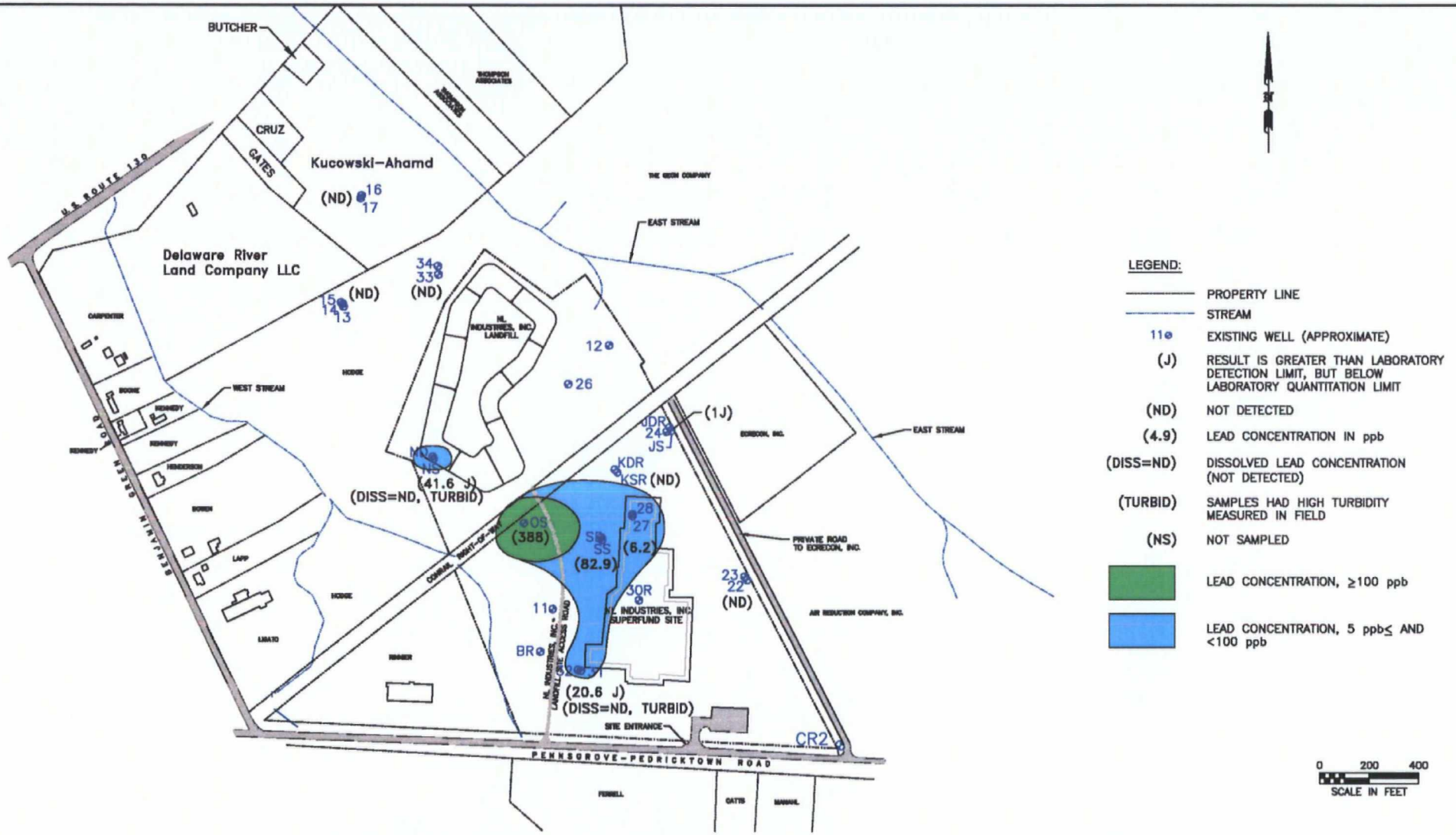
Groundwater PH - 2007 Shallow Zone

NL Industries Superfund Site
Pedricktown, New Jersey

FIGURE
3



CSI Environmental, LLC 918 Chesapeake Ave. Annapolis, MD 21403 410-268-2765		Groundwater PH - 2007 Deep Zone NL Industries Superfund Site Pedricktown, New Jersey	FIGURE 4



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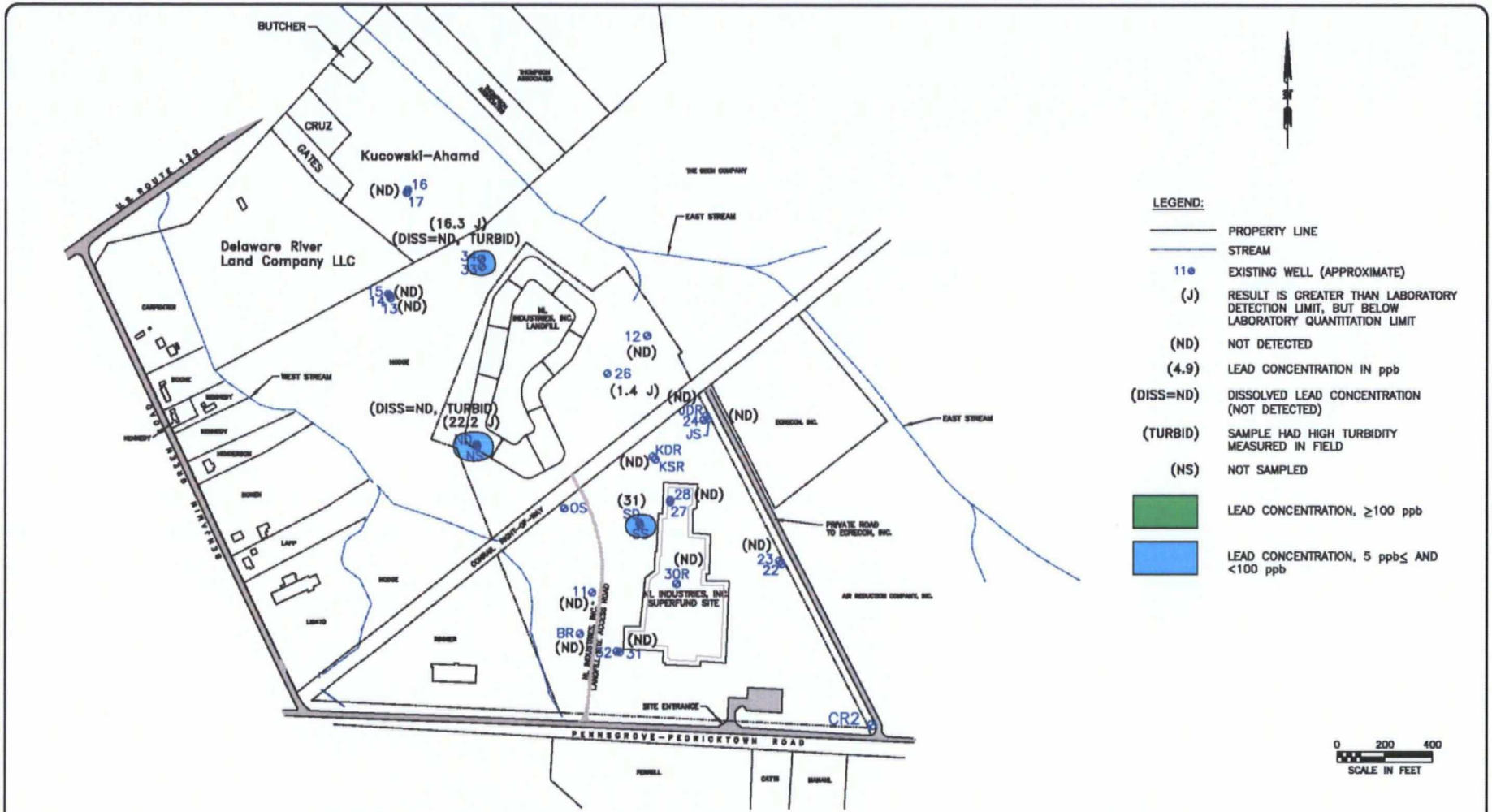
Total Lead Concentration
Shallow Unconfined Aquifer - 2007

NL Industries Superfund Site
Pedricktown, New Jersey

FIGURE
5



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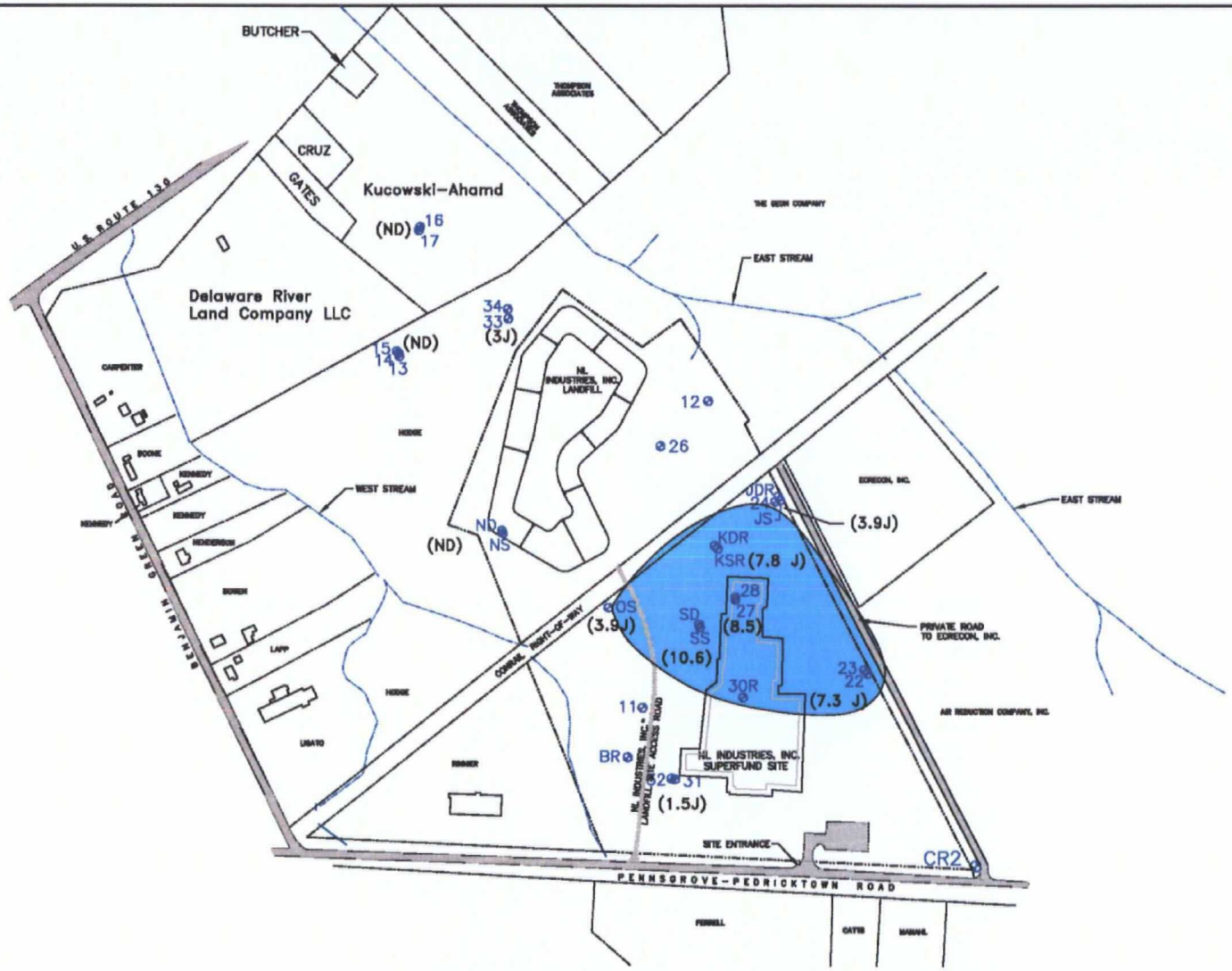
Total Lead Concentration
Deep Unconfined Aquifer - 2007
NL Industries Superfund Site
Pedricktown, New Jersey

FIGURE
6



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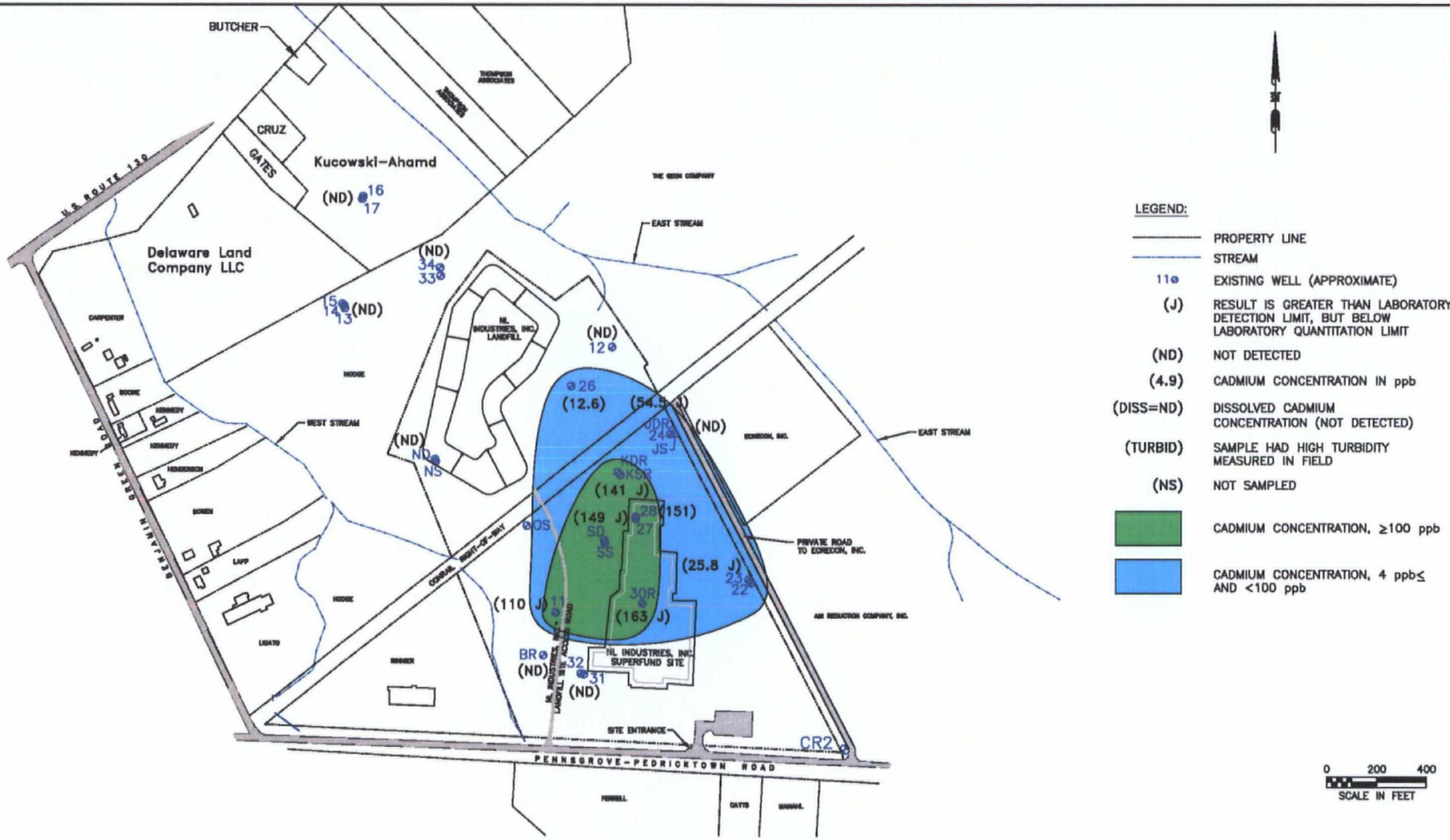
410-268-7261

Total Cadmium Concentration
Shallow Unconfined Aquifer - 2007

NL Industries Superfund Site
Pedricktown, New Jersey

FIGURE
7



CSI Environmental, LLC
918 Chesapeake Ave.
Annapolis, MD 21403
410–268–7261

Total Cadmium Concentration
Deep Unconfined Aquifer - 2007

NL Industries Superfund Site
Pedricktown, New Jersey

FIGURE
8

TABLES

Table 1
Groundwater Monitoring Locations, Groundwater Elevations and Well Construction Details
NL Industries Superfund Site
Pedricktown, New Jersey

Monitoring Well	Casing Diameter	Well Depth [1]	Screened Interval [2]	Top of Casing Elevation [3]	Top of Screened Interval Elevation	Depth To Water [4]	Groundwater Elevation	Aquifer Zone [5]
BR	4	39	33-39	9.74	-23.26	4.15	5.59	UA
JS	2	15.5	5-15	12.95	7.95	5.41	7.54	UA
JDR	2	27.3	17-27	13.01	-3.99	5.49	7.52	UA
KSR	2	17	5-15	9.53	4.53	2.5	7.03	UA
KDR	2	27.35	14-24	9.47	-4.53	2.45	7.02	UA
NS	2	16.3	6.5-16.5	12.17	5.67	6.19	5.98	UA
ND	2	23.93	14-24	11.22	-2.78	5.59	5.63	UA
OS	2	21.22	6.3-21.3	11.82	5.52	6.37	5.45	UA
SS	2	16.4	6.4-16.4	11.64	5.24	5.03	6.61	UA
SD	2	29.25	17.4-29.4	12.33	-5.07	5.72	6.61	UA
11	4	54.1	34.1-54.1	9.72	-24.38	4.08	5.64	UA
13	4	115.7	95.7-115.7	10.6	-85.1	17.3	-6.7	SCA
14	4	46.6	26.6-46.6	10.405	-16.195	5.97	4.435	UA
15	4	25	10.0-25.0	10.34	0.34	5.56	4.78	UA
16	4	56.8	36.8-56.8	8.47	-28.33	7.73	0.74	UA
17	4	23	8.0-23.0	8.36	0.36	4.76	3.6	UA
22	2	23.1	11-16	14.16	3.16	6.75	7.41	UA
23	2	34.25	24-34	14	-10	6.54	7.46	UA
26	2	21.8	12-22	11.86	-0.14	4.91	6.95	UA
27	2	15	5-15	13.49	8.49	6.17	7.32	UA
28	2	30	20-30	13.98	-6.02	6.7	7.28	UA
30R	2	28.71	17-27	12.81	-4.19	5.97	6.84	UA
31	2	16.55	5-15	14.27	9.27	7.4	6.87	UA
32	2	32.11	20-30	14.22	-5.78	8.11	6.11	UA
33	2	12.65	5-10	6.67	1.67	3.26	3.41	UA
34	2	22.3	10-20	6.55	-3.45	2.91	3.64	UA
12	4	78.2	58.2-78.2	11.79	-46.41	11.37	0.42	FCA
24	2	74.6	68-73	13.13	-54.87	12.79	0.34	FCA

[1] Depth to bottom of well in feet below top of casing (TOC).

[2] Screened interval of well in feet below ground surface.

[3] TOC elevation in feet above mean sea level.

[4] Depth to water in feet below TOC, measured in April 2007.

[5] UA = Unconfined Aquifer, FCA = First Confined Aquifer, SCA = Second Confined Aquifer.

Table 2
Water Quality of Sampled Wells, April 2007
NL Industries Superfund Site
Pedricktown, New Jersey

Monitoring Well	ORP (mv)	Turbidity (NTU)	D.O. (mg/L)	pH	Conductivity (ms/cm)	Temperature (Deg. C)
BR	-302	8.5	0	5.61	1.65	13
JS	42	40.8	1.65	4.77	0.1	10
JDR	385	19	0	3.54	0.592	11.3
KSR	-54	30	0	3.72	0.293	10
KDR	409	20.3	0	2.99*	10.6	11.64
NS	-80	46.8	1.99	6.14	0.286	9.3
ND	-45	49.6	0	5.51	0.72	11.6
OS	-23	18	0	2.59*	0.9	10.9
SS	-126	11.7	0	5.2*	4.72	11.8
SD	277	2.1	0	3.15*	35.6	13.05
11	274	5.3	0	5.29	2.12	14.46
13	46	10	0	4.87	0.564	13.7
14	94	11.6	1.2	4.36	0.144	13.3
15	259	19	3.96	4.29	0.051	11.1
16	-50	41	0	5.83	0.203	13.4
17	121	33.5	0	5.22	0.429	9.7
22	433	4.7	0	3.83	0.215	12.46
23	140	3	0	3.64	5.2	13
26	272	12.5	0	3.98	3.32	11.58
27	-51	14	4.36	5.26	0.465	11
28	298	10.2	0	3.84	0.992	11.7
30R	190	9.6	0	5.3	1.99	12.82
31	103	28	1	6.05	0.188	11.75
32	-243	33	0	5.85	1.99	13.2
33	104	11.5	0	5.23	1.14	10.1
34	-171	155	0	5.73	2.35	12.2
12	-206	8.6	0	5.44	0.96	12.8
24	19	11	0	5.71	0.647	14

NA = Not Applicable

* Data from benchscale treatability study sample collection in June 2007 used for these locations.

Table 3
Data Summary for the April 2007 Monitoring Well Sampling
NL Industries Superfund Site
Pedricktown, New Jersey

	Well Number																	Comparison Criteria	
Parameter (ug/L)	11	12	13	14	15	16	17	22	23	24	26	27	MW-100*	28	30R	31	102***	NJGWQS, NJMCL or PQL	EPAMCL
Inorganics																			
Total Cadmium	110 J	ND	ND	ND	ND	ND	ND	7.3 J	25.8 J	ND	12.6 J	8.5	149	151	163 J	1.5 J	1.2 J	4	5
Dissolved Cadmium	113 J	ND	ND	ND	ND	ND	ND	7.2 J	26.7 J	ND	13 J	7.1	154	163	169 J	1 J	ND	NA	NA
Total Lead	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.4 J	6.2	ND	ND	ND	20.6 J	17 J	10	15
Dissolved Lead	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.6	ND	ND	1.6 J	ND	ND	NA	NA
Organics																			
Acetone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	700	NA
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.66 J	ND	ND	ND	ND	ND	ND	ND	1	5
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6	80
Isobutane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2	2 (7 in ROD)
1,1-Dichloroethane	0.99	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	70	50
cis-1,2-Dichloroethene	0.68	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10	70
Methylene Chloride	0.39 U	ND	0.64 U	0.42 U	0.36 U	0.26 U	0.31 U	ND	ND	ND	ND	0.4 U	0.29 U	0.35 U	ND	3.0 U	ND	2	5
Methyl tert-butyl Ether	ND	ND	ND	ND	ND	0.69	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	700	700
Tetrachloroethene	1.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	1 (5 in ROD)
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,000	1,000
1,1,1-Trichloroethane	2.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	26	200
Trichloroethene	0.29 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	5
Vinyl Chloride	ND	9.3	ND	ND	ND	ND	ND	ND	ND	4.9	ND	ND	ND	ND	ND	ND	ND	5	2

J = Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than zero. The concentration given is an approximate value.
U = Parameter was flagged in data validation and are considered non-detects.
* 100 is a duplicate sample obtained from monitoring well 28.
** 101 is a duplicate sample obtained from monitoring well KDR.
*** 102 is a duplicate sample obtained from monitoring well 31.
**** Two rinsate blanks were collected (RB-1 and RB-2), RB-1 was collected from the pump used at well 17 , RB-2 was collected from the pump used at well 26, both samples were collected using field blank water supplied by Chemtech.
***** FB-1 is a field blank collected with water supplied by Chemtech, water used for final rinse during decontamination events.
N/A = Not Applicable
ND = Non Detect
RDL = Required Detection Limit (Contract)
MDL = Method Detection Limit (Instrument)
MCL = Maximum Contaminant Level
Note:

Table 3 Cont.
Data Summary for the April 2007 Monitoring Well Sampling
NL Industries Superfund Site
Pedricktown, New Jersey

	Well Number														QA/QC Samples							Comparison Criteria	
Parameter (ug/L)	32	33	34	JS	JDR	KSR	KDR	101**	SS	SD	NS	ND	OS	BR	RB-1****	RB-2****	FB-1*****	TB-1	TB-2	TB-3	TB-4	NJGWQS, NJMCL or PQL	EPAMCL
Inorganics																							
Total Cadmium	ND	3.0 J	ND	3.9 J	54.5 J	7.8 J	141 J	139 J	10.6 J	149 J	1.5 U	ND	3.9 J	ND	ND	ND	ND	NA	NA	NA	NA	4	5
Dissolved Cadmium	ND	ND	ND	3 J	60.8 J	3.8 U	166 J	144 J	11.8 J	156 J	1.4 U	ND	4.2 J	1.1 U	ND	1.1 U	ND	NA	NA	NA	NA	NA	NA
Total Lead	ND	ND	16.3	1.0 J	ND	ND	ND	ND	82.9	31	41.6 J	22.2 J	388	ND	ND	ND	ND	NA	NA	NA	NA	10	15*
Dissolved Lead	ND	ND	ND	ND	ND	ND	ND	ND	13	90.4	ND	ND	320	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
Organics																							
Acetone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	9.4	ND	ND	ND	ND	700	NA
Carbon Disulfide	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.68	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	700	NA
Chloroform	ND	ND	ND	ND	ND	ND	ND	0.98	ND	2.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6	80
Isobutane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.7 J	ND	ND	ND	ND	NA	NA
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2	2 (7 in ROD)
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	70	50
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.35 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	700	700
Methylene Chloride	ND	0.45 U	0.36 U	ND	0.5 U	0.33 U	0.28 U	ND	ND	0.5 U	ND	ND	ND	ND	2.2 U	2 U	3 U	0.55 U	0.84 U	0.45 U	2.5 U	2	5
Mehtyl tert-butyl Ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.41 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	70	NA
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	1 (5 in ROD)
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.5 J	ND	ND	ND	ND	0.25 J	0.33 J	0.37 J	ND	ND	ND	ND	1,000	1,000
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	26	200
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5	2
Total Xylenes	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,000	10,000

J = Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than zero. The concentration given is an approximate value.
U = Parameter was flagged in data validation and are considered non-detects.
* 100 is a duplicate sample obtained from monitoring well 28.
** 101 is a duplicate sample obtained from monitoring well KDR.
*** 102 is a duplicate sample obtained from monitoring well 31.
**** Two rinsate blanks were collected (RB-1 and RB-2), RB-1 was collected from the pump used at well 17 , RB-2 was collected from the pump used at well 26, both samples were collected using field blank water supplied by Chemtech.
***** FB-1 is a field blank collected with water supplied by Chemtech, water used for final rinse during decontamination events.
N/A = Not Applicable
ND = Non Detect
RDL = Required Detection Limit (Contract)
MDL = Method Detection Limit (Instrument)
MCL = Maximum Contaminant Level
Note:

Table 4
Data Summary for the January 13-14 and 20, 2004 Monitoring Well Sampling
NL Industries Superfund Site
Pedricktown, New Jersey

	Well Number											QA/QC Samples			Comparison Criteria			
Parameter (ug/L)	11	12	22	23	24	26	27	MW-101**	28	30R	31	RB-2***	FB-2	Trip Blank	RDL	MDL	NJGWQS, NJMCL or PQL	EPAMCL
Inorganics																		
Total Cadmium	416	ND	15.6	74.8	ND	30.8	2.2 J	3.8 J	250	136	ND	ND	0.84 J	NA	5	0.12	4	5
Dissolved Cadmium	415	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	5	0.12	NA	NA
Total Lead	4	4.9	5.7	3.6	4.9	5.6	3 J	3.4	4.2	3.2	34.3	ND	ND	NA	3	0.5	10	15*
Dissolved Lead	5.1	ND	ND	ND	4.3	ND	ND	ND	ND	ND	2.8 J	ND	ND	NA	3	0.5	NA	NA
Organics																		
Acetone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.5	2.5	700	NA
Benzene	ND	ND	ND	ND	0.66 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	0.14	1	5
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.5/1	0.5/0.24	6	80
Isobutane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.7 J	ND	0	0	NA	NA
1,1-Dichloroethene	1.1 J/1.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5/1	0.69/0.11	2	2 (7 in ROD)
1,1-Dichloroethane	1.2 J/1.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5/1	0.66/0.01	70	50
cis-1,2-Dichloroethene	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	0.36	10	70
Methylene Chloride	ND	1.9 U	ND	0.54 U	ND	1.6 U	0.78 U	1.5 U	0.83 U	ND	ND	ND	0.65 U	0.51 U	0.5	0.5	2	5
Tetrachloroethene	1.4 J/2.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5/1	0.7/0.22	1	1 (5 in ROD)
1,1,1-Trichloroethane	7.8/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5/1	0.75/0.14	26	200
Trichloroethene	ND/0.69	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	0.27	1	5
Vinyl Chloride	ND	3.7	ND	ND	3.9 J/4.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.5/1	0.5/0.26	5	2

J = The reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL or RDL) but greater than or equal to the Instrument Detection Limit (IDL or MDL)

U = Parameter was flagged in data validation because of laboratory contamination and are considered non-detects.

* MW-100 is a duplicate sample obtained from monitoring well NS.

** MW-101 is a duplicate sample obtained from monitoring well 27.

*** Two rinsate blanks were collected (RB-1 and RB-2), results from RB-1 are not representative because of the inability to properly collect the sample in the field caused by below freezing temperatures.

N/A = Not Applicable

ND = Non Detect

RDL = Required Detection Limit (Contract)

MDL = Method Detection Limit (Instrument)

MCL = Maximum Contaminant Level

Note: For the organics results, where two values are indicated, the first value indicates the result obtained from method OLM03.2 and the second indicates the result obtained using method SW-846 8260B Low Level.

Table 4 Cont.
Data Summary for the January 13-14 and 20, 2004 Monitoring Well Sampling
NL Industries Superfund Site
Pedricktown, New Jersey

	Well Number														Comparison Criteria			
Parameter (ug/L)	32	33	34	JS	JDR	KSR	KDR	SS	SD	NS	MW-100*	ND	OS	BR	RDL	MDL	NJGWQS, NJMCL or PQL	EPAMCL
Inorganics																		
Total Cadmium	ND	0.45 J	ND	3.9 J	14.8	15.1	97.1	105	134	0.55 J	ND	ND	1.4 J	1.3 J	5	0.12	4	5
Dissolved Cadmium	ND	0.4 J	ND	1.5 J	12.6	15.8	92.8	ND	ND	ND	ND	ND	1.4 J	1.4 J	5	0.12	NA	NA
Total Lead	2.3 J	ND	ND	4	12.6	5	11.9	321	36.8	7.4	9.1	18.8	156	5.6	3	0.5	10	15*
Dissolved Lead	ND	ND	2.4 J	3	6.8	4.1	11.2	ND	ND	2.3 J	3.1	10.6	94.9	3.9	3	0.5	NA	NA
Organics																		
Acetone	ND	ND	ND	ND	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	2.5	2.5	700	NA
Chloroform	ND	ND	ND	ND	ND	ND	0.96 J	ND	0.83	ND	ND	ND	ND	ND	0.5/1.0	0.5/0.24	6	80
Isobutane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0	0	NA	NA
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5/1	0.69/0.11	2	2 (7 in ROD)
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5/1	0.66/0.01	70	50
Methylene Chloride	ND	ND	ND	ND	ND	ND	ND	1.9	2.1	ND	ND	ND	ND	ND	0.5	0.5	2	5
Mehtyl tert-butyl Ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	N	ND	0.34	ND	ND	1	0.49	70	NA
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5/1	0.70.22	1	1 (5 in ROD)
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5/1	0.750.14	26	200
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.5/1	0.5/0.26	5	2

J = The reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL or RDL) but greater than or equal to the Instrument Detection Limit (IDL or MDL)

U = Parameter was flagged in data validation because of laboratory contamination and are considered non-detects.

* MW-100 is a duplicate sample obtained from monitoring well NS.

** MW-101 is a duplicate sample obtained from monitoring well 27.

N/A = Not Applicable

ND = Non Detect

RDL = Required Detection Limit (Contract)

MDL = Method Detection Limit (Instrument)

MCL = Maximum Contaminant Level

Note: For the organics results, where two values are indicated, the first value indicates the result obtained from method OLM03.2 and the second indicates the result obtained using method SW-846 8260B Low Level.

Table 5
Recommended Groundwater Monitoring Locations
NL Industries Superfund Site
Pedricktown, New Jersey

Monitoring Well	Well Depth [1]	Screened Interval [2]	Aquifer Zone [5]	Rationale
BR	39	33-39	UA	western limits
JS	15.37	5-15	UA	eastern limits
JDR	27.26	17-27	UA	eastern limits
KSR	15	5-15	UA	central area
KDR	24	14-24	UA	central area
NS	16.5	6.5-16.5	UA	western limits
ND	24	14-24	UA	western limits
OS	21.3	6.3-21.3	UA	western limits
SS	16.4	6.4-16.4	UA	central area
SD	29.4	17.4-29.4	UA	central area
11	54.1	34.1-54.1	UA	western limits
13	115.7	95.7-115.7	SCA	northern limts
14	46.6	26.6-46.6	UA	northern limts
15	25	10.0-25.0	UA	northern limts
22	16	11-16	UA	eastern limits
23	24	24-34	UA	eastern limits
26	22	12-22	UA	northern limts
27	15	5-15	UA	central area
28	30	20-30	UA	central area
30R	28.71	17-27	UA	central area
31	15	5-15	UA	southern limits
33	10	5-10	UA	northern limts

[1] Depth to bottom of well in feet below top of casing (TOC).
[2] Screened interval of well in feet below ground surface.
[3] UA = Unconfined Aquifer

APPENDIX A

Well OD Abandonment Report

DWR-020
9 05

New Jersey Department of Environmental Protection
Division of Water Supply - Bureau of Water Systems & Well Permitting

WELL ABANDONMENT REPORT

MAIL TO: **Bureau of Water Systems & Well Permitting**
PO Box 426
Trenton, NJ 08625-0426

WELL PERMIT # 30-2765 of well sealed

DATE WELL SEALED 4/25/07

PROPERTY OWNER National Lead Industries, Inc.

ADDRESS 25 Pennsgrove Pedricktown Rd, Pedricktown, NJ.

WELL LOCATION is Pennsgrove Pedricktown R.D, Pedricktown, OLDMANSTWP SALEM CO.
Street & No., Township, County

00	17	21
Well No.	Lot No.	Block No.

USE OF WELL PRIOR TO ABANDONMENT: Monitoring

REASON FOR ABANDONMENT: NOT IN USE

WAS A NEW WELL DRILLED? ☐ YES ☒ NO PERMIT # OF NEW WELL ____

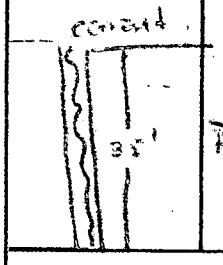
TOTAL DEPTH OF WELL	35
DIAMETER	2
CASING LENGTH	20
SCREEN LENGTH	15
NUMBER OF CASINGS	1

MATERIAL USED TO DECOMMISSION WELL:

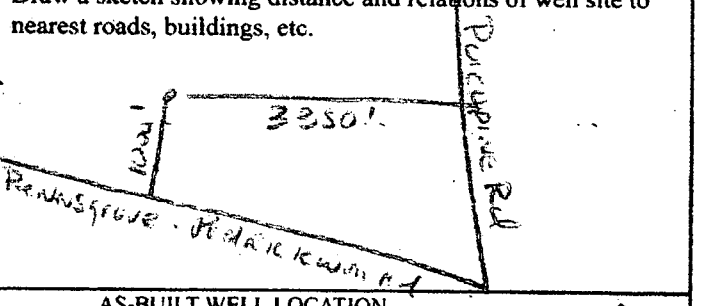
3.5	Gallons of Water
60	Lbs. of Cement
—	Lbs. of Bentonite
—	Lbs. of Sand/Gravel (none if well is contaminated)

FORMATION: ____ Consolidated ✓ Unconsolidated

Cross-section of sealed well



Draw a sketch showing distance and relations of well site to nearest roads, buildings, etc.



AS-BUILT WELL LOCATION
(NAD 83 HORIZONTAL DATUM)
NJ STATE PLACE COORDINATE IN US SURVEY FEET

N

NORTHING: _____ EASTING: _____
OR
LATITUDE: ___ ___ ' ___ . __ " LONGITUDE: ___ ___ ' ___ . __ "

To permit adequate grouting, the casing should remain in place, but ungrouted liner pipes or any other obstructions must be removed. Pressure grouting is the only accepted method.

WAS CASING LEFT IN PLACE? ☒ YES ☐ NO CASING MATERIAL: PVC

WERE OTHER OBSTRUCTIONS LEFT IN WELL? ☐ YES ☒ NO WHAT WERE THE OBSTRUCTIONS: ____

IF "YES", AUTHORIZATION GRANTED BY — ON —
(NJDEP Official) (Date)

Was an alternative decommissioning method used and/or approval to decommission granted by a DEP official? ☐ YES ☒ NO

IF "YES", authorization granted by — ON —
(NJDEP Official) (Date)

I certify that this well was sealed in accordance with N.J.A.C. 7:9D-3 et seq.

Charles Kramer	6864 S. Evergreen Ave Woodbury NJ	5/13/07
Performing Work (Print or Type) Name of NJ Licensed Well Driller	Address	Mailing Date
D26826	Signature of NJ Licensed Well Driller Performing Work	MD1060 Registration #

COPIES: White - Water Allocation Yellow - Owner Pink - Health Dept. Goldenrod - Driller

APPENDIX B

Validated Laboratory Data

Premier Environmental Services

DATA VALIDATION SUMMARY
OF THE
NL INDUSTRIES SUPERFUND SITE
PEDRICKTOWN, NEW JERSEY

ORGANIC AND INORGANIC ANALYSES
IN GROUNDWATER SAMPLES

CHEMTECH LABORATORIES
MOUNTAINSIDE, NEW JERSEY

PROJECT NUMBER: Y2435, Y2448

June, 2007

Prepared for
Construction Services Incorporated
Annapolis, Maryland

Prepared by
Premier Environmental Services
2815 Covered Bridge Road
Merrick, New York 11566
(516)223-9761

DATA VALIDATION FOR:	**Volatile Organic Analyses**
SITE:	**NL Industries, Inc. Pedricktown, New Jersey**
REPORT NUMBER:	**Y2435**
CONTRACT LAB:	**Chemtech Consulting Group**
REVIEWER:	**Renee Cohen**
DATE REVIEW COMPLETED:	**July, 2007**
MATRIX:	**Aqueous**

The data validation was performed according to the guidelines in the NJ DEP SOP No. HW-13, Revision 3.0, 7/01, Organic Data Review for Low Concentration Water (OLC03.2, CLP SOW). All data are considered valid and acceptable except those which have been rejected "R" (unusable). Due to various QC problems some analytes may have been qualified with a "J" (estimated), "N" (presumptive evidence for the presence of he material, "U" (non-detect), or "JN" (presumptive evidence for the presence of the material at an estimated value) flag. All action is detailed on the attached sheets.

The "R" flag means that the associated value is unreliable. In other words, significant data bias is evident and the reported analyte concentration is unreliable.

A copy of the qualifiers and their definitions that may be used in this report are located in Appendix A of this report. Qualified data result pages are located in Appendix B of this report. Copies of the Chain of Custody (COC) documents associated with this data set are located in Appendix C of this report. Appendix D of this report contains copies of the correspondence between this data validator and the laboratory.

This data assessment is for a total of nine (9) aqueous field samples and two (2) Trip Blank samples listed on the Chain of Custody documents that accompanied the samples to the laboratory. A cross-reference between Field Sample ID and Laboratory Sample ID is located in Table 1 of this report.

The samples in this data set were collected April 23, 2007 and April 24, 2007. The samples were picked up and delivered to the laboratory. The samples were received at Chemtech Consulting Group, located in Mountainside, New Jersey. They were received at the laboratory on April 23, 2007 and April 24, 2007. The samples were analyzed for the parameters listed on the chain of custody documents. This report is the review of the Volatile Organic Data. The review of the inorganic sample analyses associated with this data set is located in the Inorganic Data Validation report.

ORGANIC DATA ASSESSMENT

OVERVIEW:

The samples in this data set were to be analyzed for the Target Compound List (TCL) Volatile Organic Analytes. Tentatively Identified Compounds were searched for and reported when detected. The samples were analyzed by EPA method OLC03.2. This method utilizes 25 mls of sample in order to obtain lower method detection limits.

This report reviews Laboratory Reports Y2435 and Y2448. Nine (9) field samples and two (2) trip blank samples were analyzed, reported and reviewed.

1. HOLDING TIME:

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the specified holding time is exceeded, the data may not be valid. Volatile Organic analyses are required to be analyzed within 10 days of validated time of sample receipt (VTSR) in accordance with the SOW. The technical holding time for properly preserved aqueous samples is 14 days from collection.

All of the samples in this data set received at the laboratory in good condition. All samples were properly preserved. The samples associated with this data set were analyzed within the ten (10) days of sample receipt. The holding time was met for all samples in this data set.

2. SURROGATES:

All samples are fortified with the Deuterated Monitoring Compounds prior to analysis. Fourteen (14) compounds are associated with this method. The method utilizes fourteen (14) Deuterated Surrogate Monitoring Compounds. These compounds monitor purge efficiency. Method specific recovery limits were utilized/reported by Chemtech. All percent recoveries are summarized on the Surrogate Summary Form included with in this report.

Chemtech summarized the surrogate recovery data for all field samples and QC samples associated with this data set. The percent recovery of all deuterated surrogate compounds met QC criteria in all field samples associated wit this data set.

All surrogate recovery criteria were met for all field samples in this data set. All QC sample surrogate recovery met QC criteria with the exception of Bromoform-d in sample VLCS02. The surrogate recovery was slightly lower (72%) than the method QC recovery limits (76-135%). Based on all other surrogate recovery limits, no action was taken based on this QC outlier.

3. MATRIX SPIKE/SPIKE DUPLICATE, MS/MSD:

The MS/MSD data are generated to determine the long-term precision and accuracy of the analytical method in various matrices. The MS/MSD may be used in conjunction with other QC criteria for additional qualification of data. The laboratory should apply the recovery criteria stated in OLCO3.2 for reporting purposes.

The laboratory did not perform site-specific MS/MSD analysis on the samples in this data set. Additional sample volume was not collected to analyze an MS/MSD sample set.

The laboratory prepared two (2) Laboratory Control Samples (LCS). The LCS samples were each fortified with all of the target analytes. The LCS summary form reported the concentration and percent recovery of each target analyte. All percent recoveries met QC criteria in each of the LCS samples associated with this data set.

4. BLANK CONTAMINATION:

Quality assurance (QA) blanks, such as the method, trip, field, or rinse blanks are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure cross-contamination of samples during shipment. Field and rinse blanks measure cross-contamination of samples during field operations. Samples were only qualified with those QC samples associated with the particular blank. The following analytes in the samples shown were qualified "U" for these reasons:

A) Method Blank contamination

One (1) aqueous method blank sample is associated with the samples in this data set. Each was free from contamination of target analytes.

B) Field (FB) or Equipment Rinse Blank (ERB) contamination

Sample RB-1 (Y2448-10) associated with this data set was free from contamination of all target analytes with the exception of Methylene Chloride (2.2 ug/l). This analyte was also detected in sample Trip Blank -2 (TB-2, Y2448-01). The Methylene Chloride detected in sample RB-2 has been qualified "U" not-detected.

Qualified data result pages are located in Appendix B of this report.

C) Trip Blank contamination

Trip Blank sample TB-1 (Y2435- 01) was free from contamination of all target analytes with the exception of Methylene Chloride (0.55 ug/l). Methylene Chloride was detected in all of the samples associated with this Trip Blank sample. The Methylene Chloride has been negated and qualified "U" not-detected.

The Trip Blank sample TB-2 (Y2448-01) was free from contamination of all target analytes with the exception of Methylene Chloride (0.84 ug/l). Methylene Chloride was detected in all of the samples associated with this Trip Blank sample. The Methylene Chloride has been negated in each of these samples and qualified "U" not-detected.

5. MASS SPECTROMETER TUNING:

Tuning and performance criteria are established to ensure adequate mass resolution, proper identification of compounds, and to some degree, sufficient instrument sensitivity. These criteria are not sample specific. Instrument performance is determined using standard materials. Therefore, these criteria should be met in all circumstances. The tuning standard for volatile organics is Bromofluorobenzene (BFB). If the mass calibration is in error, or missing, all associated data will be classified as unusable, "R".

All GC/MS BFB tuning criteria associated with these sample analyses met QC criteria.

6. GC/MS CALIBRATION:

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of giving acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument is giving satisfactory daily performance.

A) RESPONSE FACTOR

The response factor measures the instrument's response to specific chemical compounds. The average response factor for the Low Concentration VOA Target Compound List (TCL) must be greater than or equal to 0.05 in both initial and continuing calibrations unless the compounds is listed as a "poor performer". The list of "poor performer" analytes is located in the validation documents. A value less than 0.05, (0.01/poor performer) indicates a serious detection and quantitation problem (poor sensitivity). USEPA data validation criteria state that if the minimum RRF criteria are not met in an initial calibration the positive results are qualified "J". Non-detect results in the initial calibration with a RRF <0.05 (0.01/poor performer) are qualified "R", unusable. If RRF criteria are not met in the continuing calibration curve analysis, affected positive analytes will be qualified "J" estimated.

One calibration curve is associated with these sample analyses. The calibration was performed May 1, 2007 on GCMS Instrument F. A five (5) point calibration (0.5 ug/l, 1.0 ug/l, 5.0 ug/l, 10 ug/l, 25.0 ug/l) curve was analyzed. The average response factor for all target analytes met QC criteria in this initial calibration curve analysis.

One (1) continuing calibration standard analysis is associated with this data set. Continuing calibration standard analysis was performed on May 2, 2007. The response factor criteria were met for all target analytes in the continuing calibration standards on May 2, 2007.

6. GC/MS CALIBRATION (Cont'd):

B)PERCENT RELATIVE STANDARD DEVIATION (RSD) AND PERCENT DIFFERENCE (%D):

Percent RSD is calculated from the initial calibration and is used to indicate the stability of the specific compound response factor over increasing concentration. Percent D compares the response factor of the compounds in the continuing calibration standard to the mean response factor (RRF) from the initial calibration. Percent D is a measure of the instrument's daily performance. Region II data validation criteria states that the percent RSD of the initial calibration curve must be less than or equal to 30%. The analytes listed as "poor performers" must have an RSD of less than or equal to 50%. The %D must be <25% (50% for poor performers) in the continuing calibration standard. This criteria has been applied to all target analytes. A value outside of these limits indicates potential detection and quantitation errors. For these reasons, all positive results are flagged as estimated, "J" and non-detects may be flagged "UJ", based on professional judgement. If %RSD and %D grossly exceed QC criteria (>90%), non-detects data may be qualified "R", unusable. Data associated with this set has been reviewed for the criteria in the cited in the USEPA Data Validation Guidelines.

One (1) initial calibration cure analysis was performed on GCMS Instrument F (5/1/07). All %RSD criteria in the initial calibration curve analysis associated with this data set met.

One (1) continuing calibration standard analysis is associated with this data set. All %D criteria in the continuing calibration standard met QC criteria.

7. INTERNAL STANDARDS PERFORMANCE:

Internal standard (IS) performance criteria ensure that the GC/MS sensitivity and response are stable during every run. The method recommends that the internal standard area count must not vary by more than a factor of 2 (-50-100%) from the associated continuing calibration standard. The method recommends that the retention time of the internal standard must not vary more than ±30 seconds from the associated continuing calibration standard. The EPA CLP validation guidelines state that if the area count is outside the (-50-100%) range of the associated standard, all of the positive results for compounds quantitated using that IS are qualified estimated, "J", and all non-detects below 50% are qualified "UJ", non detects above 100% should not be qualified or "R" if there is a severe loss of sensitivity. The internal standard evaluation criteria has been applied to all field and QC samples.

Each of the samples in this data set was fortified with the Internal Standards, Pentaflurobenzene, 1,4-Difluorobenzene, Chlorobenzene-d5 and 1,4-Dichlorobenzene-d5. All internal standard area counts and retention time shifts met QC criteria in the samples associated with this data set.

ORGANIC DATA ASSESSMENT

8. COMPOUND IDENTIFICATION:

Target compounds are identified on the GC/MS by using the analyte's relative retention time (RRT) and by comparison to the ion spectra obtained from known standards. For the results to be a positive hit, the sample peak must be within ± 0.06 RRT units of the standard compound, and have an ion spectra which has a ratio of the primary and secondary ion intensities with 20% of that in the standard compound.

The samples with this data set were analyzed in accordance with EPA Method OLC03.2 as per the COC documents that accompanied the samples to the laboratory. The samples in each of the laboratory reports were analyzed using a 25 ml aliquot of sample. Lower (0.5 ug/L) detection limits were reported on the result forms. A library search for Tentatively Identified Compounds (TIC's) was performed for each sample in this data set and reported. TIC's when detected were reported on the result forms.

One (1) groundwater sample and one (1) Trip Blank sample are associated with Laboratory Report (Y2435). Methylene Chloride was detected in the Trip Blank sample in this data set. All groundwater samples in this data set were free from contamination of the target analytes with the exception of Methylene Chloride. The Methylene Chloride has been negated in the sample (with the exception of the Trip Blank sample) and qualified "U".

Seven (7) groundwater samples, one (1) Rinse Blank (RB-1) and one (1) Trip Blank sample (TB-2) are associated with Laboratory Report Y2448. Methylene Chloride was detected in both the Trip Blank and Rinse Blank sample in this data set. All groundwater samples in this data set were free from contamination of the target analytes with the exception of Methylene Chloride. The Methylene Chloride has been negated in each of the samples (with the exception of the Trip Blank sample) and qualified "U".

Qualified data result pages are located in Appendix B of this report.

9. FIELD DUPLICATE ANALYSIS:

Field duplicate samples are collected and analyzed as an indication of overall precision. These results are expected to have more variability than laboratory duplicate samples. Sample 28 (Y2448-12) and 100 (Y2448-16) are field duplicate samples. Target analytes with the exception of Methylene Chloride were not detected in either of these field duplicate samples, therefore, no comparison of field duplicate data was made. Methylene Chloride was attributed to laboratory contamination therefore, comparison of this result was not made.

ORGANIC DATA ASSESSMENT

10. SYSTEM PERFORMANCE AND OVERALL ASSESSMENT:

Analytical QC criteria of the method analyzed were met for the analytical data submitted. The data reported agrees with the raw data provided in the final report. The laboratory provided a complete data package and reported all data using acceptable protocols and laboratory qualifiers as defined in the report package.

The samples in the complete data set were to be analyzed in accordance with the Low Level Volatile Organic method specified by the COC documents (OLC03.2).

Laboratory report Y2435 consisted of two (2) samples. Laboratory report Y2448 consisted of nine (9) samples. This data validation report encompasses both of these data sets. The samples were collected and analyzed using the same calibration sequence.

Methylene Chloride was detected in each of the Trip Blanks associated with these data sets and has been negated in each of the field samples. The sample data associated with the method reported is acceptable for use, with the noted data qualifiers.

Qualified data result pages are located in Appendix B of this report. Appendix D of this report contains a complete set of result forms and QC summary forms without data qualifiers. These are the QC summary forms that were provided in the original data report.

DATA VALIDATION FOR:	**Total and Dissolved Lead and Cadmium Analyses**
SITE:	**NL Industries, Inc. Pedricktown, New Jersey**
PROJECT NUMBER:	**Y2435, Y2448**
CONTRACT LAB:	**Chemtech Consulting Mountainside, New Jersey**
REVIEWER:	**Renee Cohen**
DATE REVIEW COMPLETED:	**June, 2007**
MATRIX:	**Aqueous**

The data validation was performed according to the guidelines in the current SOP No. HW-2 (Revision 13), September, 2005 for the Evaluation of Metal Data for the Contract Laboratory Program. All data are considered valid and acceptable except those analytes which have been rejected "R" (unusable/unreliable). Due to various QC problems some analytes may have been qualified with a "J" (estimated), "N" (presumptive evidence for the presence of he material, "U" (non-detect), or "JN" (presumptive evidence for the presence of the material at an estimated value) flag. All actions are detailed on the attached sheets.

The "R" flag means that the associated value is unusable. In other words, significant data bias is evident and the reported analyte concentration is unreliable.

Appendix A of this report contains a copy of the definitions that may be used in this report. Appendix B of this report contains the qualified data result pages associated with this data set. Appendix C of this report contains a copy of the Chain of Custody (COC) documents that accompanied the samples to the laboratory. Appendix D of this report contains a copy of all unqualified data result pages and the QC summary sheets associated with this data set.

This data assessment is for a total of nine (9) groundwater samples listed on the Chain of Custody documents that accompanied the samples to the laboratory. These groundwater samples were analyzed for Total and Dissolved metals. A cross-reference between Field Sample ID and Laboratory Sample ID is located in Table 1 of this report.

The samples in this data set were collected April 23, 2007 and April 24, 2007 and picked up by the laboratory currier. The samples were received by Chemtech Consulting, located in Mountainside, New Jersey. The samples were received by the laboratory on April 23, 2007 and April 24, 2007. The samples were analyzed for the parameters listed on the chain of custody documents. The samples in this data set were analyzed for Total and Dissolved Lead and Cadmium. The samples were also analyzed for Volatile Organic Analytes. The organic data review is located in the organic section of this validation report.

INORGANIC DATA ASSESSMENT

1. HOLDING TIME

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the specified holding time is exceeded, the data may not be valid. Metals with the exception of Mercury, are required to be digested and analyzed within 180 days of Verified Time of Sample Receipt (VTSR). Mercury samples are to be digested and analyzed within 26 days of VTSR.

Nine (9) groundwater samples are associated with this review/report. The samples in these data sets were analyzed for Total and Dissolved Cadmium and Lead. The aqueous samples were prepared/digested on April 26, 2007. The digestates were analyzed in one analytical sequence on May 3, 2007. All of the samples in this data grouping were prepared/digested and analyzed within the proper holding time.

2. CALIBRATION ANALYSIS

Inductively Coupled Plasma (ICP) was utilized for these analyses. The ICP was calibrated using a single point standard as required by the manufacturer. An initial calibration verification (ICV) standard was then analyzed to verify instrument calibration. The Total and Dissolved samples were analyzed in one (1) analytical sequence on May 3, 2007. Recoveries of the ICV standards associated with the analytical sequence met QC criteria. One continuing calibration verification (CCV) standard was then analyzed after each ten (10) field samples. All CCV percent recoveries met QC criteria.

3. CRDL STANDARD

The CRDL standard is used for the verification of instrument linearity near the CRDL. The CRDL standard control limits are 70-130% recovery. If the CRDL standard falls outside of the control limits, associated data less than or equal to the 10X the CRDL are qualified estimated (J or UJ) or rejected (R) depending on the recovery of the CRDL standard and the concentration of the analyte in the sample. When the CRDL standard exceeds the control limit, indicating a high bias, and the associated sample results are non-detect, no action is taken. When the CRDL standard exceeds the control limit, indicating a high bias positive sample results are qualified estimated (J).

Three (3) CRDL standards are associated with the ICP Total and Dissolved Metal analytical sequence. The recovery of Lead and Cadmium in all three (3) CRDL standards met QC criteria.

4. INTERFERENCE CHECK STANDARD

The Interference Check Standard (ICS) is used to verify the laboratory interelement and background correction factors of the ICP. Two solutions comprise the ICS A and ICS AB. Solution A consists of the interferent metals while solution AB is the group of target analytes and the interferents metals. An ICS analysis consists of analyzing both solutions consecutively for all wavelengths used for each analyte reported by ICP.

All ICSA and ICSAB recoveries associated with these analyses met QC criteria.

5. MATRIX SPIKE ANALYSIS

The spike sample analysis provides information about the effect of the sample matrix upon the digestion and measurement methodology. The spike control limits are 75%-125% when the sample concentration is less than four (4) times the spike added. If the matrix spike recoveries fall in the range of 30%-74%, the sample results are may be biased low and are qualified as estimated (J or UJ). If the matrix spike recoveries fall in the range of 126%-200%, sample results may be biased high. Positive results are qualified estimated (J). If the spike recovery is greater than 125% and the reported sample result is less than the IDL the data point is acceptable for use. If the matrix spike recovery is greater than 200%, the associated sample data are unusable and are rejected (R). If matrix spike results are less than 30%, the associated non-detect results are qualified unusable and rejected (R), and the results reported above the IDL are qualified estimated (J).

Chemtech performed a Matrix Spike analysis on Site Specific QC Sample 13 (Y2435-2). Sample 13 is the Total sample associated with the data set. The percent recovery of Lead and Cadmium in both the Total and Dissolved sample met QC criteria

6. POST DIGESTION SPIKE ANALYSIS

The post digestion spike sample analysis provides additional information about the effect of the sample matrix upon the digestion and measurement methodology. The post digestion spike is performed for each analyte that the pre-digestion spike recovery falls outside the 75-125% control limit.

Post digestion spike analysis was not necessary for the Total and Dissolved Lead and Cadmium that is associated with this data set.

7. DUPLICATE SAMPLE ANALYSIS

The duplicate sample analysis is used to evaluate the precision of the methods for each parameter. If the duplicate sample analysis results for a particular analyte fall outside the control windows of 20% RPD or =/- CRDL, whichever is appropriate depending upon the concentration of the sample, the associated sample results are qualified "J" estimated.

Chemtech performed laboratory duplicate analysis on Site Specific sample 13 (Y2435-2). This is the Total sample of point 13. Total Cadmium and Total Lead were not detected in this sample. The relative percent difference of Lead and Cadmium in the Total duplicate sample analysis met QC criteria.

8. ICP SERIAL DILUTION ANALYSIS

The serial dilution analysis indicates whether significant physical or chemical interference's exist due to the sample matrix. If the concentration of any analyte in the original sample is greater than 50 times the instrument detection limit (IDL), an analysis of a 5-fold dilution samples must yield results which have a percent difference (%D) of less than or equal to 10 with the original sample results. If the %D of the serial dilution exceeds the 10% (and is not greater than 100%) for a particular analyte, all the associated sample results are qualified estimated (J).

Chemtech performed Total ICP Serial Dilution analysis on Site Specific Sample 13 (Y2435-2). Cadmium and Lead were not detected in this Total sample analysis. The percent difference of Total Cadmium and Total Lead in the serial dilution analysis met QC criteria.

9. BLANKS

Blank analyses are assessed to determine the existence and magnitude of contamination problems. The criteria used for the evaluation of blanks applies to all blanks, including but not limited to reagent blanks, method blanks and field blanks. The responsibility for action in the case of an unsuitable blank result depends upon the circumstances and the origin of the blank itself. If the problem with any blank exists, then all associated data must be carefully evaluated to determine whether there is inherent variability in the data for that case, or the problem is an isolated occurrence not effecting other data.

The preparation blank associated with both the Total and Dissolved Lead and Cadmium analysis was free from contamination.

The Rinse Blank sample (RB-1, /Y2448-10, Y2448-11) was analyzed for both Total and Dissolved Cadmium and Total Lead. The Rinse Blank sample was free from contamination of both Total and Dissolved Cadmium and Lead.

10. LABORATORY CONTROL SAMPLE ANALYSIS

The laboratory control sample (LCS) analysis provides information about the efficiency of the digestion procedure. If the recovery of any analyte is outside the established control limits (aqueous 80%-120%), then laboratory performance and method accuracy are in question. Professional judgment is used to determine of data should be qualified or rejected.

One (1) LCS standard sample is associated with both the Total and Dissolved Lead and Cadmium analysis in this data set. The LCS sample met QC criteria for both Cadmium and Lead.

INORGANIC DATA ASSESSMENT

11. SAMPLE RESULTS DATA

This data report combines the results of the groundwater samples collected April 23-24, 2007. Chemtech Laboratories these samples in two (2) data reports (Y2435 and Y2448). This review is for both data sets. The samples in this data set were analyzed for Total and Dissolved Metals based on the method ILM04.1. Data was reviewed using the current USEPA Region 2 data review SOP.

Each of the samples was analyzed and reported without dilution. A review of Total and Dissolved sample results was performed. The data results associated with this data set are acceptable for use without data qualifiers.

12 FIELD DUPLICATE DATA

Field duplicate samples are collected and analyzed as an indication of overall precision. These results are expected to have more variability than laboratory duplicate samples. Soil samples will have a greater variance due to the difficulties associated with collecting exact duplicate soil samples than aqueous samples. Data was not qualified based on the results of the field duplicate sample data.

Groundwater Sample 28 and 100 are field duplicates. The samples were blind duplicates submitted to the laboratory for analysis.

Total Metal Analyses
28 (Y2448-12)/100 (Y2448-16)

Analyte	Result ug/l	Result ug/l	RPD%
Cadmium	151	149	1.33
Lead	1.0 U	1.0 U	NC

Dissolved Metal Analyses
28 (Y2448-13)/100 (Y2448-17)

Analyte	Result ug/l	Result ug/l	RPD%
Cadmium	163	154	5.68
Lead	1.0 U	1.0 U	NC

U denotes not detected at the Method Detection Limit (MDL)
NC denotes not calculated

INORGANIC DATA ASSESSMENT

13. INSTRUMENT QC DATA

The laboratory is required by the method to perform specific instrument verification tests on a specific timeframe. Based on a review of the QC summary forms included in the data report, Chemtech performed the required studies specified by the method in the correct time-frame.

14. SYSTEM PERFORMANCE AND OVERALL ASSESSMENT

This data set included the analysis of nine (9) groundwater/aqueous samples for Total and Dissolved Lead and Cadmium. The samples were analyzed in accordance with Inorganic CLP Method ILM04.1. The sample results have been reported in accordance with the cited method.

The data associated with this data set is acceptable for use without data qualifiers.

TABLE 1

2815 COVERED BRIDGE ROAD, MERRICK, NEW YORK 11566
(516) 223-9761 • FAX (516) 223-0983

CLIENT SAMPLE ID	LABORATORY SAMPLE ID
TB-1	Y2435-01
13	Y2435-02
13	Y2435-03
TB-2	Y2448-01
14	Y2448-02
14	Y2448-03
15	Y2448-04
15	Y2448-05
33	Y2448-06
33	Y2448-07
34	Y2448-08
34	Y2448-09
RB-1	Y2448-10
RB-1	Y2448-11
28	Y2448-12
28	Y2448-13
27	Y2448-14
27	Y2448-15
100	Y2448-16
100	Y2448-17

2815 COVERED BRIDGE ROAD, MERRICK, NEW YORK 11566
(516) 223-9761 • FAX (516) 223-0983

APPENDIX A

2815 COVERED BRIDGE ROAD, MERRICK, NEW YORK 11566
(516) 223-9761 • FAX (516) 223-0983

DATA QUALIFIER DEFINITIONS

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

N - The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."

NJ - The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

UJ - The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R - The sample results are unreliable/unusable. The presence or absence of the analyte cannot be verified.

K – The analyte is present. The reported value may be biased high. The actual value is expected to be lower than reported.

L - The analyte is present. The reported value may be biased low. The actual value is expected to be higher than reported.

UL – The analyte was not detected, and the reported quantitation limit is probably higher than reported.

APPENDIX B

2815 COVERED BRIDGE ROAD, MERRICK, NEW YORK 11566
(516) 223-9761 • FAX (516) 223-0983

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2435 SAS No.: Y2435 SDG No.: Y2435

Matrix (soil/water): WATER Lab Sample ID: Y2435-02

Sample wt/vol: 25.0 (g/mL) ml Lab File ID: VF006757.D

Level (low/med): Date Received: 4/23/07

% Moisture: not dec. 100 Date Analyzed: 5/2/07

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS No.	Compound	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
76-13-1	1,1,2-Trichlorotrifluoroethan	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
67-64-1	Acetone	2.5	U
75-15-0	Carbon disulfide	0.50	U
1634-04-4	Methyl tert-butyl Ether	0.50	U
79-20-9	Methyl Acetate	0.50	U
75-09-2	Methylene Chloride	0.64	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
78-93-3	2-Butanone	2.5	U
56-23-5	Carbon Tetrachloride	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
108-87-2	Methylcyclohexane	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
108-10-1	4-Methyl-2-Pentanone	2.5	U
108-88-3	Toluene	0.50	U
10061-02-6	t-1,3-Dichloropropene	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2435 SAS No.: Y2435 SDG No.: Y2435

Matrix (soil/water): WATER Lab Sample ID: Y2435-02

Sample wt/vol: 25.0 (g/mL) ml Lab File ID: VF006757.D

Level (low/med): Date Received: 4/23/07

% Moisture: not dec. 100 Date Analyzed: 5/2/07

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS No.	Compound	(ug/L or ug/Kg) ug/L	Q
591-78-6	2-Hexanone	2.5	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethyl Benzene	0.50	U
126777-61-2	m&p-xylenes	0.50	U
95-47-6	o-xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U
1330-20-7	Total Xylenes	1.0	U

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

13

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2435 SAS No.: Y2435 SDG No.: Y2435

Matrix (soil/water): WATER Lab Sample ID: Y2435-02

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: VF006757.D

Level (low/med): Date Received: 4/23/2007

% Moisture: not dec. 100 Date Analyzed: 5/2/2007

GC Column: RTX624 ID: 0.53 Dilution Factor: 1.0

Soil Extract Volume: Soil Aliquot Volume:

Number TICS found: 0 CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NO.	COMPOUND	RT	EST. CONC.	Q

Comments:

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

14

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2448 SAS No.: Y2448 SDG No.: Y2448

Matrix (soil/water): WATER Lab Sample ID: Y2448-02

Sample wt/vol: 25.0 (g/mL) ml Lab File ID: VF006759.D

Level (low/med): Date Received: 4/24/07

% Moisture: not dec. 100 Date Analyzed: 5/2/07

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS No.	Compound	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
76-13-1	1,1,2-Trichlorotrifluoroethan	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
67-64-1	Acetone	2.5	U
75-15-0	Carbon disulfide	0.50	U
1634-04-4	Methyl tert-butyl Ether	0.50	U
79-20-9	Methyl Acetate	0.50	U
75-09-2	Methylene Chloride	0.42	J U
156-60-5	trans-1,2-Dichloroethene	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
78-93-3	2-Butanone	2.5	U
56-23-5	Carbon Tetrachloride	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
108-87-2	Methylcyclohexane	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
108-10-1	4-Methyl-2-Pentanone	2.5	U
108-88-3	Toluene	0.50	U
10061-02-6	t-1,3-Dichloropropene	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

14

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2448 SAS No.: Y2448 SDG No.: Y2448

Matrix (soil/water): WATER Lab Sample ID: Y2448-02

Sample wt/vol: 25.0 (g/mL) ml Lab File ID: VF006759.D

Level (low/med): Date Received: 4/24/07

% Moisture: not dec. 100 Date Analyzed: 5/2/07

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS No.	Compound	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
591-78-6	2-Hexanone	2.5	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethyl Benzene	0.50	U
126777-61-2	m&p-xylenes	0.50	U
95-47-6	o-xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U
1330-20-7	Total Xylenes	1.0	U

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

14

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2448 SAS No.: Y2448 SDG No.: Y2448

Matrix (soil/water): WATER Lab Sample ID: Y2448-02

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: VF006759.D

Level (low/med): Date Received: 4/24/2007

% Moisture: not dec. 100 Date Analyzed: 5/2/2007

GC Column: RTX624 ID: 0.53 Dilution Factor: 1.0

Soil Extract Volume: Soil Aliquot Volume:

Number TICS found: 0 CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NO.	COMPOUND	RT	EST. CONC.	Q

Comments:

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

15

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2448 SAS No.: Y2448 SDG No.: Y2448

Matrix (soil/water): WATER Lab Sample ID: Y2448-04

Sample wt/vol: 25.0 (g/mL) ml Lab File ID: VF006760.D

Level (low/med): Date Received: 4/24/07

% Moisture: not dec. 100 Date Analyzed: 5/2/07

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS No.	Compound	(ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
76-13-1	1,1,2-Trichlorotrifluoroethan	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
67-64-1	Acetone	2.5	U
75-15-0	Carbon disulfide	0.50	U
1634-04-4	Methyl tert-butyl Ether	0.50	U
79-20-9	Methyl Acetate	0.50	U
75-09-2	Methylene Chloride	0.36	J U
156-60-5	trans-1,2-Dichloroethene	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
78-93-3	2-Butanone	2.5	U
56-23-5	Carbon Tetrachloride	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
108-87-2	Methylcyclohexane	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
108-10-1	4-Methyl-2-Pentanone	2.5	U
108-88-3	Toluene	0.50	U
10061-02-6	t-1,3-Dichloropropene	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

15

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2448 SAS No.: Y2448 SDG No.: Y2448

Matrix (soil/water): WATER Lab Sample ID: Y2448-04

Sample wt/vol: 25.0 (g/mL) ml Lab File ID: VF006760.D

Level (low/med): Date Received: 4/24/07

% Moisture: not dec. 100 Date Analyzed: 5/2/07

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS No.	Compound	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
591-78-6	2-Hexanone	2.5	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethyl Benzene	0.50	U
126777-61-2	m&p-xylenes	0.50	U
95-47-6	o-xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U
1330-20-7	Total Xylenes	1.0	U

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

15

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2448 SAS No.: Y2448 SDG No.: Y2448

Matrix (soil/water): WATER Lab Sample ID: Y2448-04

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: VF006760.D

Level (low/med): Date Received: 4/24/2007

% Moisture: not dec. 100 Date Analyzed: 5/2/2007

GC Column: RTX624 ID: 0.53 Dilution Factor: 1.0

Soil Extract Volume: Soil Aliquot Volume:

Number TICS found: 0 CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NO.	COMPOUND	RT	EST. CONC.	Q

Comments:

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

33

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2448 SAS No.: Y2448 SDG No.: Y2448

Matrix (soil/water): WATER Lab Sample ID: Y2448-06

Sample wt/vol: 25.0 (g/mL) ml Lab File ID: VF006761.D

Level (low/med): Date Received: 4/24/07

% Moisture: not dec. 100 Date Analyzed: 5/2/07

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS No.	Compound	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
76-13-1	1,1,2-Trichlorotrifluoroethan	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
67-64-1	Acetone	2.5	U
75-15-0	Carbon disulfide	0.50	U
1634-04-4	Methyl tert-butyl Ether	0.50	U
79-20-9	Methyl Acetate	0.50	U
75-09-2	Methylene Chloride	0.45	J U
156-60-5	trans-1,2-Dichloroethene	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
78-93-3	2-Butanone	2.5	U
56-23-5	Carbon Tetrachloride	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
108-87-2	Methylcyclohexane	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
108-10-1	4-Methyl-2-Pentanone	2.5	U
108-88-3	Toluene	0.50	U
10061-02-6	t-1,3-Dichloropropene	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

33

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2448 SAS No.: Y2448 SDG No.: Y2448

Matrix (soil/water): WATER Lab Sample ID: Y2448-06

Sample wt/vol: 25.0 (g/mL) ml Lab File ID: VF006761.D

Level (low/med): Date Received: 4/24/07

% Moisture: not dec. 100 Date Analyzed: 5/2/07

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS No.	Compound	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
591-78-6	2-Hexanone	2.5	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethyl Benzene	0.50	U
126777-61-2	m&p-xylenes	0.50	U
95-47-6	o-xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U
1330-20-7	Total Xylenes	1.0	U

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

33

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2448 SAS No.: Y2448 SDG No.: Y2448

Matrix (soil/water): WATER Lab Sample ID: Y2448-06

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: VF006761.D

Level (low/med): Date Received: 4/24/2007

% Moisture: not dec. 100 Date Analyzed: 5/2/2007

GC Column: RTX624 ID: 0.53 Dilution Factor: 1.0

Soil Extract Volume: Soil Aliquot Volume:

Number TICS found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L

CAS NO.	COMPOUND	RT	EST. CONC.	Q

Comments:

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

34

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2448 SAS No.: Y2448 SDG No.: Y2448

Matrix (soil/water): WATER Lab Sample ID: Y2448-08

Sample wt/vol: 25.0 (g/mL) ml Lab File ID: VF006762.D

Level (low/med): Date Received: 4/24/07

% Moisture: not dec. 100 Date Analyzed: 5/2/07

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS No.	Compound	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
76-13-1	1,1,2-Trichlorotrifluoroethan	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
67-64-1	Acetone	2.5	U
75-15-0	Carbon disulfide	0.50	U
1634-04-4	Methyl tert-butyl Ether	0.50	U
79-20-9	Methyl Acetate	0.50	U
75-09-2	Methylene Chloride	0.36	J U
156-60-5	trans-1,2-Dichloroethene	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
78-93-3	2-Butanone	2.5	U
56-23-5	Carbon Tetrachloride	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
108-87-2	Methylcyclohexane	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
108-10-1	4-Methyl-2-Pentanone	2.5	U
108-88-3	Toluene	0.50	U
10061-02-6	t-1,3-Dichloropropene	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

34

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2448 SAS No.: Y2448 SDG No.: Y2448

Matrix (soil/water): WATER Lab Sample ID: Y2448-08

Sample wt/vol: 25.0 (g/mL) ml Lab File ID: VF006762.D

Level (low/med): Date Received: 4/24/07

% Moisture: not dec. 100 Date Analyzed: 5/2/07

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS No.	Compound	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
591-78-6	2-Hexanone	2.5	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethyl Benzene	0.50	U
126777-61-2	m&p-xylenes	0.50	U
95-47-6	o-xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U
1330-20-7	Total Xylenes	1.0	U

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

34

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2448 SAS No.: Y2448 SDG No.: Y2448

Matrix (soil/water): WATER Lab Sample ID: Y2448-08

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: VF006762.D

Level (low/med): Date Received: 4/24/2007

% Moisture: not dec. 100 Date Analyzed: 5/2/2007

GC Column: RTX624 ID: 0.53 Dilution Factor: 1.0

Soil Extract Volume: Soil Aliquot Volume:

Number TICS found: 0 CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NO.	COMPOUND	RT	EST. CONC.	Q

Comments:

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RB-1

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2448 SAS No.: Y2448 SDG No.: Y2448

Matrix (soil/water): WATER Lab Sample ID: Y2448-10

Sample wt/vol: 25.0 (g/mL) ml Lab File ID: VF006763.D

Level (low/med): Date Received: 4/24/07

% Moisture: not dec. 100 Date Analyzed: 5/2/07

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS No.	Compound	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
76-13-1	1,1,2-Trichlorotrifluoroethan	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
67-64-1	Acetone	2.5	U
75-15-0	Carbon disulfide	0.50	U
1634-04-4	Methyl tert-butyl Ether	0.50	U
79-20-9	Methyl Acetate	0.50	U
75-09-2	Methylene Chloride	2.2	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
78-93-3	2-Butanone	2.5	U
56-23-5	Carbon Tetrachloride	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
108-87-2	Methylcyclohexane	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
108-10-1	4-Methyl-2-Pentanone	2.5	U
108-88-3	Toluene	0.25	J
10061-02-6	t-1,3-Dichloropropene	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RB-1

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2448 SAS No.: Y2448 SDG No.: Y2448

Matrix (soil/water): WATER Lab Sample ID: Y2448-10

Sample wt/vol: 25.0 (g/mL) ml Lab File ID: VF006763.D

Level (low/med): Date Received: 4/24/07

% Moisture: not dec. 100 Date Analyzed: 5/2/07

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS No.	Compound	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
591-78-6	2-Hexanone	2.5	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethyl Benzene	0.50	U
126777-61-2	m&p-xylenes	0.50	U
95-47-6	o-xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U
1330-20-7	Total Xylenes	1.0	U

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RB-1

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2448 SAS No.: Y2448 SDG No.: Y2448

Matrix (soil/water): WATER Lab Sample ID: Y2448-10

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: VF006763.D

Level (low/med): Date Received: 4/24/2007

% Moisture: not dec. 100 Date Analyzed: 5/2/2007

GC Column: RTX624 ID: 0.53 Dilution Factor: 1.0

Soil Extract Volume: Soil Aliquot Volume:

Number TICS found: 0 CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NO.	COMPOUND	RT	EST. CONC.	Q

Comments:

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

28

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2448 SAS No.: Y2448 SDG No.: Y2448

Matrix (soil/water): WATER Lab Sample ID: Y2448-12

Sample wt/vol: 25.0 (g/mL) ml Lab File ID: VF006764.D

Level (low/med): Date Received: 4/24/07

% Moisture: not dec. 100 Date Analyzed: 5/2/07

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS No.	Compound	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
76-13-1	1,1,2-Trichlorotrifluoroethan	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
67-64-1	Acetone	2.5	U
75-15-0	Carbon disulfide	0.50	U
1634-04-4	Methyl tert-butyl Ether	0.50	U
79-20-9	Methyl Acetate	0.50	U
75-09-2	Methylene Chloride	0.35	~~U~~ U
156-60-5	trans-1,2-Dichloroethene	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
78-93-3	2-Butanone	2.5	U
56-23-5	Carbon Tetrachloride	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
108-87-2	Methylcyclohexane	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
108-10-1	4-Methyl-2-Pentanone	2.5	U
108-88-3	Toluene	0.50	U
10061-02-6	t-1,3-Dichloropropene	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.: 28

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2448 SAS No.: Y2448 SDG No.: Y2448

Matrix (soil/water): WATER Lab Sample ID: Y2448-12

Sample wt/vol: 25.0 (g/mL) ml Lab File ID: VF006764.D

Level (low/med): Date Received: 4/24/07

% Moisture: not dec. 100 Date Analyzed: 5/2/07

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L

CAS No.	Compound	ug/L	Q
591-78-6	2-Hexanone	2.5	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethyl Benzene	0.50	U
126777-61-2	m&p-xylenes	0.50	U
95-47-6	o-xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U
1330-20-7	Total Xylenes	1.0	U

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

28

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2448 SAS No.: Y2448 SDG No.: Y2448

Matrix (soil/water): WATER Lab Sample ID: Y2448-12

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: VF006764.D

Level (low/med): Date Received: 4/24/2007

% Moisture: not dec. 100 Date Analyzed: 5/2/2007

GC Column: RTX624 ID: 0.53 Dilution Factor: 1.0

Soil Extract Volume: Soil Aliquot Volume:

Number TICS found: 0 CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NO.	COMPOUND	RT	EST. CONC.	Q

Comments:

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

27

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2448 SAS No.: Y2448 SDG No.: Y2448

Matrix (soil/water): WATER Lab Sample ID: Y2448-14

Sample wt/vol: 25.0 (g/mL) ml Lab File ID: VF006765.D

Level (low/med): Date Received: 4/24/07

% Moisture: not dec. 100 Date Analyzed: 5/2/07

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS No.	Compound	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
76-13-1	1,1,2-Trichlorotrifluoroethan	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
67-64-1	Acetone	2.5	U
75-15-0	Carbon disulfide	0.50	U
1634-04-4	Methyl tert-butyl Ether	0.50	U
79-20-9	Methyl Acetate	0.50	U
75-09-2	Methylene Chloride	0.40	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
78-93-3	2-Butanone	2.5	U
56-23-5	Carbon Tetrachloride	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
108-87-2	Methylcyclohexane	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
108-10-1	4-Methyl-2-Pentanone	2.5	U
108-88-3	Toluene	0.50	U
10061-02-6	t-1,3-Dichloropropene	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

27

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2448 SAS No.: Y2448 SDG No.: Y2448

Matrix (soil/water): WATER Lab Sample ID: Y2448-14

Sample wt/vol: 25.0 (g/mL) ml Lab File ID: VF006765.D

Level (low/med): Date Received: 4/24/07

% Moisture: not dec. 100 Date Analyzed: 5/2/07

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS No.	Compound	(ug/L or ug/Kg) ug/L	Q
591-78-6	2-Hexanone	2.5	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethyl Benzene	0.50	U
126777-61-2	m&p-xylenes	0.50	U
95-47-6	o-xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U
1330-20-7	Total Xylenes	1.0	U

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

27

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2448 SAS No.: Y2448 SDG No.: Y2448

Matrix (soil/water): WATER Lab Sample ID: Y2448-14

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: VF006765.D

Level (low/med): Date Received: 4/24/2007

% Moisture: not dec. 100 Date Analyzed: 5/2/2007

GC Column: RTX624 ID: 0.53 Dilution Factor: 1.0

Soil Extract Volume: Soil Aliquot Volume:

Number TICS found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L

CAS NO.	COMPOUND	RT	EST. CONC.	Q

Comments:

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

100

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2448 SAS No.: Y2448 SDG No.: Y2448

Matrix (soil/water): WATER Lab Sample ID: Y2448-16

Sample wt/vol: 25.0 (g/mL) ml Lab File ID: VF006766.D

Level (low/med): Date Received: 4/24/07

% Moisture: not dec. 100 Date Analyzed: 5/2/07

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS No.	Compound	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
76-13-1	1,1,2-Trichlorotrifluoroethan	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
67-64-1	Acetone	2.5	U
75-15-0	Carbon disulfide	0.50	U
1634-04-4	Methyl tert-butyl Ether	0.50	U
79-20-9	Methyl Acetate	0.50	U
75-09-2	Methylene Chloride	0.29	J U
156-60-5	trans-1,2-Dichloroethene	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
78-93-3	2-Butanone	2.5	U
56-23-5	Carbon Tetrachloride	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
108-87-2	Methylcyclohexane	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
108-10-1	4-Methyl-2-Pentanone	2.5	U
108-88-3	Toluene	0.50	U
10061-02-6	t-1,3-Dichloropropene	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

100

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2448 SAS No.: Y2448 SDG No.: Y2448

Matrix (soil/water): WATER Lab Sample ID: Y2448-16

Sample wt/vol: 25.0 (g/mL) ml Lab File ID: VF006766.D

Level (low/med): Date Received: 4/24/07

% Moisture: not dec. 100 Date Analyzed: 5/2/07

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS No.	Compound	(ug/L or ug/Kg) ug/L	Q
591-78-6	2-Hexanone	2.5	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethyl Benzene	0.50	U
126777-61-2	m&p-xylenes	0.50	U
95-47-6	o-xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U
1330-20-7	Total Xylenes	1.0	U

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

100

Lab Name: Chemtech

Contract: CONS02

Lab Code: CTECH

Case No.: Y2448

SAS No.: Y2448

SDG No.: Y2448

Matrix (soil/water): WATER

Lab Sample ID: Y2448-16

Sample wt/vol: 25.0 (g/mL) mL

Lab File ID: VF006766.D

Level (low/med):

Date Received: 4/24/2007

% Moisture: not dec. 100

Date Analyzed: 5/2/2007

GC Column: RTX624 ID: 0.53

Dilution Factor: 1.0

Soil Extract Volume:

Soil Aliquot Volume:

Number TICS found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NO.	COMPOUND	RT	EST. CONC.	Q

Comments:

APPENDIX C

2815 COVERED BRIDGE ROAD, MERRICK, NEW YORK 11566
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CHEMTECH

CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

CHEMTECH PROJECT NO. 12435

COC Number 064681

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: CSI

ADDRESS: 918 Chesapeake Ave

CITY: Annapolis STATE: MD ZIP: 21403

ATTENTION: J. Dustin Ferris

PHONE: 410-268-3077 FAX: 410-268-0145

CLIENT PROJECT INFORMATION

PROJECT NAME: NL

PROJECT NO.: 00-0771 LOCATION: Pedrick Town

PROJECT MANAGER: Jeff Moore

e-mail: JDFERRIS@CONTACTCSI.COM

PHONE: Same FAX: Same

CLIENT BILLING INFORMATION

BILL TO: PO#:

ADDRESS: Same

CITY: STATE: ZIP:

ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX: DAYS *

HARD COPY: Standard DAYS *

EDD: DAYS *

* TO BE APPROVED BY CHEMTECH
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

- ☐ RESULTS ONLY
- ☒ USEPA CLP
- ☐ RESULTS + QC
- ☐ New York State ASP "B"
- ☐ New Jersey REDUCED
- ☐ New York State ASP "A"
- ☐ New Jersey CLP
- ☐ Other
- ☐ EDD FORMAT

ANALYSIS

1	2	3	4	5	6	7	8	9
VOCs	Total Pb+Cd	Dissolved Pb+Cd						

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1	2	3	4	5	6	7	8	9	COMMENTS
								A	B	B							← Specify Preservatives A–HCl B–HNO_3 C–H_2SO_4 D–NaOH E–ICE F–Other
1	1	Trip Blank	H_2O		X	Lab Collected		2	X								
2	3|2	13	"		X	4/23/07	1220	5	X	X	X						
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME: 4/23/07 13:55	RECEIVED BY: 1. T. Jackson
RELINQUISHED BY:	DATE/TIME:	RECEIVED BY: 2.
RELINQUISHED BY:	DATE/TIME: 4-23-07 4:10	RECEIVED FOR LAB BY: 3. SNEHAL MEHTA

Conditions of bottles or coolers at receipt: ☒ Compliant ☐ Non Compliant Cooler Temp. 4°C

MeOH extraction requires an additional 4 oz jar for percent solid. Ice in Cooler?: YES

Comments: Diss. Metals Received Field Filtered & Preserved

Page 1 of 1

SHIPPED VIA: CLIENT: ☐ HAND DELIVERED ☐ OVERNIGHT CHEMTECH: ☒ PICKED UP ☐ OVERNIGHT

Shipment Complete: ☒ YES ☐ NO

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CHEMTECH

CHAIN OF CUSTODY RECORD

204 Chemtech Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

2448

COC Number 064736

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: CSI
ADDRESS: 918 Chesapeake Ave.
CITY: Annapolis STATE: MD ZIP: 21403
ATTENTION: J. Austin Ferris
PHONE: 410-268-3077 FAX: 410-268-0145

CLIENT PROJECT INFORMATION

PROJECT NAME: NL
PROJECT NO.: 00-0771 LOCATION:
PROJECT MANAGER: Jeff Moore
e-mail: JDFERRIS@CONTACTCSI.COM
PHONE: FAX:

CLIENT BILLING INFORMATION

BILL TO: PO#:
ADDRESS: Same as Client
CITY: STATE: ZIP:
ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX: DAYS *
HARD COPY: STD DAYS *
EDD: DAYS *
* TO BE APPROVED BY CHEMTECH
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

- ☐ RESULTS ONLY
- ☐ RESULTS + QC
- ☐ New Jersey REDUCED
- ☐ New Jersey CLP
- ☐ EDD FORMAT
- ☒ USEPA CLP
- ☐ New York State ASP "B"
- ☐ New York State ASP "A"
- ☐ Other

ANALYSIS

1 VOCs by OLC 3.2 (CLP)
2 Total Pb + Cd (CLP)
3 Diss. Pb + Cd (CLP)
4
5
6
7
8
9

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1	2	3	4	5	6	7	8	9	COMMENTS
1. 1	Trip Blank	H_2O		X	Lab Collected		4	X	X	X							
2. 2, 3	14				4/23/07	1430	5	X	X	X							
3. 4, 5	15					1440	5	X	X	X							
4. 6, 7	33					1650	5	X	X	X							
5. 8, 9	34					1730	5	X	X	X							
6. 10, 11	RB-1					1815	5	X	X	X							
7. 12, 13	28				4/24/07	0845	5	X	X	X							
8. 14, 15	27				"	1050	5	X	X	X							
9.																	
10.																	

← Specify Preservatives
A – HCl B – HNO_3
C – H_2SO_4 D – NaOH
E – ICE F – Other

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1.	4/24/07 1255	1. T. Thelon
RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:
2.		2.
RELINQUISHED BY:	DATE/TIME: 3:50	RECEIVED FOR LAB BY:
3. T. Thelon	4-24-07	3. Sneha Mehta

Conditions of bottles or coolers at receipt: ☒ Compliant ☐ Non Compliant Cooler Temp. 5°C
MeOH extraction requires an additional 4 oz jar for percent solid. Ice In Cooler?: YES
Comments: All Dissolved metal sample were Field Filtered & preserved See e-Mail

Page 1 of 1

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Shipment Complete: ☒ YES ☐ NO

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Y2448 : 00129

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

CHEMTECH PROJECT NO. Y2448
COC Number 064736

CLIENT INFORMATION
REPORT TO BE SENT TO:
COMPANY: CSI
ADDRESS: 918 Chesapeake Ave.
CITY: Annapolis STATE: MD ZIP: 21403
ATTENTION: J. Austin Ferris
PHONE: 410-268-3077 FAX: 410-268-0145

CLIENT PROJECT INFORMATION
PROJECT NAME: NL
PROJECT NO.: 00-0771 LOCATION:
PROJECT MANAGER: Jeff Moore
e-mail: JDFERRIS@CONTACTCSI.COM
PHONE: FAX:

CLIENT BILLING INFORMATION
BILL TO: PO#:
ADDRESS: Same as Client
CITY: STATE: ZIP:
ATTENTION: PHONE:

DATA TURNAROUND INFORMATION
FAX: ______ DAYS *
HARD COPY: STD DAYS *
EDD: ______ DAYS *
* TO BE APPROVED BY CHEMTECH
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION
☐ RESULTS ONLY ☒ USEPA CLP
☐ RESULTS + QC ☐ New York State ASP "B"
☐ New Jersey REDUCED ☐ New York State ASP "A"
☐ New Jersey CLP ☐ Other ______
☐ EDD FORMAT ______

ANALYSIS
1. VOCs by OLC 3.2
2. Total Pb & Cd (CLP)
3. Diss. Pb + Cd (CLP)
4.
5.
6.
7.
8.
9.

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	1	2	3	4	5	6	7	8	9	COMMENTS
1.	Trip Blank	H2O		X	Lab Collected		4	X	X	X							
2.	14				4/23/07	1430	5	X	X	X							
3.	15				↓	1440	5	X	X	X							
4.	33				↓	1650	5	X	X	X							
5.	34				↓	1730	5	X	X	X							
6.	RB-1				↓	1815	5	X	X	X							
7.	28				4/24/07	0845	5	X	X	X							
8.	27				↓	1050	5	X	X	X							
9.																	
10.																	

PRESERVATIVES — ← Specify Preservatives: A–HCl B–HNO3 C–H2SO4 D–NaOH E–ICE F–Other

Handwritten comment (circled): ID = 100 bot[tle] rec'd not listed on COC. 3 - VOC vials, 1 - metals, 1 - Diss. Metals

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1. [signature]	4/24/07 1255	1. T. Dixon
RELINQUISHED BY: 2.	DATE/TIME:	RECEIVED BY: 2.
RELINQUISHED BY: 3. T. Dixon	DATE/TIME: 4-24-07 3:50	RECEIVED FOR LAB BY: 3. Snehal Mehta

Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non Compliant Cooler Temp. ______
MeOH extraction requires an additional 4 oz jar for percent solid. Ice in Cooler?: ______
Comments:

Page ______ of ______

SHIPPED VIA: CLIENT: ☐ HAND DELIVERED ☐ OVERNIGHT
CHEMTECH: ☒ PICKED UP ☐ OVERNIGHT
Shipment Complete: ☐ YES ☐ NO

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Premier Environmental Services

DATA VALIDATION SUMMARY
OF THE
NL INDUSTRIES SUPERFUND SITE
PEDRICKTOWN, NEW JERSEY

ORGANIC AND INORGANIC ANALYSES
IN AQUEOUS SAMPLES

CHEMTECH LABORATORIES
MOUNTAINSIDE, NEW JERSEY

PROJECT NUMBERS
Y2469
Y2485
Y2486

August, 2007

Prepared for
Construction Services Incorporated
Annapolis, Maryland

Prepared by
Premier Environmental Services
2815 Covered Bridge Road
Merrick, New York 11566
(516)223-9761

DATA VALIDATION FOR:	**Volatile Organic Analyses**
SITE:	**NL Industries, Inc. Pedricktown, New Jersey**
REPORT NUMBER:	**Y2469, Y2485, Y2486**
CONTRACT LAB:	**Chemtech Consulting Group**
REVIEWER:	**Renee Cohen**
DATE REVIEW COMPLETED:	**August, 2007**
MATRIX:	**Aqueous**

The data validation was performed according to the guidelines in the NJ DEP SOP No. HW-13, Revision 3.0, 7/01, Organic Data Review for Low Concentration Water (OLC03.2, CLP SOW). All data are considered valid and acceptable except those which have been rejected "R" (unusable). Due to various QC problems some analytes may have been qualified with a "J" (estimated), "N" (presumptive evidence for the presence of he material, "U" (non-detect), or "JN" (presumptive evidence for the presence of the material at an estimated value) flag. All action is detailed on the attached sheets.

The "R" flag means that the associated value is unreliable. In other words, significant data bias is evident and the reported analyte concentration is unreliable.

A copy of the qualifiers and their definitions that may be used in this report are located in Appendix A of this report. Qualified data result pages are located in Appendix B of this report. Copies of the Chain of Custody (COC) documents associated with this data set are located in Appendix C of this report. Appendix D of this report contains copies of the correspondence between this data validator and the laboratory. Appendix E of this report contains a complete set of summary forms associated with this data set. These summary forms do not have any validation qualifiers added.

This data assessment is for a total of twenty three (23) aqueous field samples two (2) Trip Blank samples, one (1) Rinse Blank sample and one (1) Field Blank sample listed on the Chain of Custody documents that accompanied the samples to the laboratory. A cross-reference between Field Sample ID and Laboratory Sample ID is located in Table 1 of this report.

The samples in Laboratory Report Y2469 were collected April 24, 2007 and April 25, 2007. The samples were picked up and delivered to the laboratory. The samples were received at Chemtech Consulting Group, located in Mountainside, New Jersey. They were received at the laboratory on April 25, 2007.

The samples in Laboratory Report Y2485 were collected April 25, 2007 and April 26, 2007. The samples were picked up and delivered to the laboratory. The samples were received at Chemtech Consulting Group, located in Mountainside, New Jersey. They were received at the laboratory on April 26, 2007.

The samples in Laboratory Report Y2486 were collected on April 25, 2007 and April 26, 2007. The samples were picked up and delivered to the laboratory. The samples were received at Chemtech Consulting Group, located in Mountainside, New Jersey. They were received at the laboratory on April 26, 2007.

The samples were analyzed for the parameters listed on the chain of custody documents. This report is the review of the Volatile Organic Data. The review of the inorganic sample analyses associated with this data set is located in the Inorganic Data Validation report.

ORGANIC DATA ASSESSMENT

OVERVIEW:

The samples in this data set were to be analyzed for the Target Compound List (TCL) Volatile Organic Analytes. Tentatively Identified Compounds were searched for and reported when detected. The samples were analyzed by EPA method OLC03.2. This method utilizes 25 mls of sample in order to obtain lower method detection limits.

This validation report reviews Chemtech Laboratory Reports Y2469, Y2485 and Y2486.

Eleven (11) groundwater samples, one (1) Rinse Blank sample and one (1) Trip Blank sample are associated with Laboratory Report Y2469.

Eight (8) groundwater samples and one (1) Field Blank sample are associated with Laboratory Report Y2485.

Four (4) groundwater samples and one (1) Trip Blank sample are associated with Laboratory Report Y2486

1. HOLDING TIME:

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the specified holding time is exceeded, the data may not be valid. Volatile Organic analyses are required to be analyzed within 10 days of validated time of sample receipt (VTSR) in accordance with the SOW. The technical holding time for properly preserved aqueous samples is 14 days from collection.

All of the samples in this data set received at the laboratory in good condition. All samples were properly preserved. The samples associated with Laboratory Reports Y2469 and Y2485 were analyzed within the ten (10) days of sample receipt. The samples in Laboratory Report Y2486 were analyzed within fourteen (14) days of sample collection. The holding time was met for all samples in this data set.

2. SURROGATES:

All samples are fortified with the Deuterated Monitoring Compounds prior to analysis. Fourteen (14) compounds are associated with this method. The method utilizes fourteen (14) Deuterated Surrogate Monitoring Compounds. These compounds monitor purge efficiency. Method specific recovery limits were utilized/reported by Chemtech. All percent recoveries are summarized on the Surrogate Summary Form included with in this report.

Chemtech summarized the surrogate recovery data for all field samples and QC samples associated with this data set. The percent recovery of all deuterated surrogate compounds was reviewed in all field samples associated with this data set.

The surrogate recovery criteria were met for all field samples in this data set. All QC sample surrogate recoveries met QC criteria in Laboratory Report Y2469.

The surrogate recovery criteria were met for all samples in this Laboratory Report Y2485. All surrogate recovery criteria were met in each QC sample associated with this data set with the exception of Bromoform-d in QC sample VLCS01. Data was not qualified based on this anomaly.

2. SURROGATES (cont'd):

The surrogate recovery criteria were met for all samples in this Laboratory Report Y2486. All surrogate recovery criteria were met in each QC sample associated with this data set with the exception of Bromoform-d in QC sample VLCS02. Data was not qualified based on this anomaly.

The samples (VLCS01 and VLCS02) in Laboratory Report Y2485 and Y2486 were analyzed using similar laboratory QC therefore, sample LCS01 and LCS02 were the same sample point.

3. MATRIX SPIKE/SPIKE DUPLICATE, MS/MSD:

The MS/MSD data are generated to determine the long-term precision and accuracy of the analytical method in various matrices. The MS/MSD may be used in conjunction with other QC criteria for additional qualification of data. The laboratory should apply the recovery criteria stated in OLCO3.2 for reporting purposes.

Site specific MS/MSD analysis was not reported in Laboratory Report Y2469. The laboratory prepared two (2) Laboratory Control Samples (LCS). The LCS samples were each fortified with all of the target analytes. The LCS summary form reported the concentration and percent recovery of each target analyte. All percent recoveries met QC criteria in each of the LCS samples associated with this data set.

Site specific MS/MSD analysis is included with Laboratory Report Y2485. MS/MSD analysis was performed on sample JDR. All percent recoveries were met in the MS and MSD sample analysis. All RPD's were met in this MS/MSD sample set with the exception of Bromoform. The RPD was slightly higher (27%) than the QC limit of 20. Data was not qualified based on the results of the MS/MSD sample analysis.

The laboratory prepared one (1) Laboratory Control Sample (LCS). The LCS samples were each fortified with all of the target analytes. The LCS summary form reported the concentration and percent recovery of each target analyte. All percent recoveries with the exception of Tetrachloroethene and Bromoform met QC criteria in the LCS sample associated with this data set. The recoveries were slightly higher than the QC limit. These target analytes were not detected in the field samples therefore no action was taken.

Site specific MS/MSD analysis is included with Laboratory Report Y2486. MS/MSD analysis was performed on sample 22. All percent recoveries were met in the MS and MSD sample analysis. All RPD's were met in this MS/MSD sample set.

The laboratory prepared and analyzed two (2) Laboratory Control Samples (LCS) with this sample set. The LCS samples were each fortified with all of the target analytes. The LCS summary form reported the concentration and percent recovery of each target analyte. All percent recoveries with the exception of Tetrachloroethene and Bromoform met QC criteria in sample LCS02. All percent recoveries with the exception of 2-Butanone and Bromoform met QC criteria in sample LCS03. The recoveries were slightly above QC limits. Sample results were not detected for these target analytes therefore no action was required.

ORGANIC DATA ASSESSMENT

4. BLANK CONTAMINATION:

Quality assurance (QA) blanks, such as the method, trip, field, or rinse blanks are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure cross-contamination of samples during shipment. Field and rinse blanks measure cross-contamination of samples during field operations. Samples were only qualified with those QC samples associated with the particular blank. The following analytes in the samples shown were qualified "U" for these reasons:

A) Method Blank contamination

One (1) aqueous method blank sample is associated with the samples in Laboratory Report Y2469. This method blank was free from contamination of all target and non-target analytes.

One (1) aqueous method blank sample is associated with the samples in the data set associated with Laboratory Report Y2485. This method blank (VBLK01, 5/8, 2007) was free from contamination of all target analytes with the exception of Methylene Chloride (0.62 ug/l). Methylene Chloride was detected in sample JDR and FB-1. When detected in each of these samples, it has been negated and qualified "U".

Two (2) aqueous method blank samples are associated with the samples in the data set associated with Laboratory Report Y2486. VBLK02 (5/8/07) was free from contamination of all target analytes with the exception of Methylene Chloride (0.62 ug/l). Methylene Chloride was detected in sample SD. When detected, it has been negated and qualified "U".

Qualified data result pages are located in Appendix B of this report.

B) Field (FB) or Equipment Rinse Blank (ERB) contamination

Sample RB-2 (Y2469-07) is associated with Laboratory Report Y2469. This Rinse Blank sample was free from contamination of all target analytes with the exception of Methylene Chloride (2.0 ug/l) and Toluene (0.33 J ug/l). Methylene Chloride was also detected in sample Trip Blank -3 (TB-3, Y2469-13). The Methylene Chloride detected in sample RB-2 has been qualified "U" not-detected. Toluene was not detected in any of the field samples associated with this data set.

Sample FB-1 (Y2485-09) associated with this data set was free from contamination of all target analytes with the exception of Acetone (9.4 ug/l), Methylene Chloride (3.0 ug/l) and Toluene (0.37 J ug/l). This analyte was also detected in the associated method blank sample. The Methylene Chloride detected in sample FB-1 has been qualified "U" not-detected.

Qualified data result pages are located in Appendix B of this report.

4. BLANK CONTAMINATION (cont'd):

C) Trip Blank contamination

Trip Blank sample TB-3 (Y2469- 13) was free from contamination of all target and non-target analytes with the exception of Methylene Chloride (0.45 Jug/l). Methylene Chloride, when detected in the associated samples has been negated and qualified "U".

The Trip Blank sample TB-4 (Y2486-07) was free from contamination of all target analytes with the exception of Methylene Chloride (2.5 ug/l). Methylene Chloride was detected sample SD in this data set. Methylene Chloride was also detected in the associated Method Blank sample. The Methylene Chloride has been negated in sample SD and qualified "U".

Qualified data result pages are located in Appendix B of this report.

5. MASS SPECTROMETER TUNING:

Tuning and performance criteria are established to ensure adequate mass resolution, proper identification of compounds, and to some degree, sufficient instrument sensitivity. These criteria are not sample specific. Instrument performance is determined using standard materials. Therefore, these criteria should be met in all circumstances. The tuning standard for volatile organics is Bromofluorobenzene (BFB). If the mass calibration is in error, or missing, all associated data will be classified as unusable, "R".

All GC/MS BFB tuning criteria associated with these sample analyses met QC criteria.

ORGANIC DATA ASSESSMENT

6. GC/MS CALIBRATION:

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of giving acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument is giving satisfactory daily performance.

A) RESPONSE FACTOR

The response factor measures the instrument's response to specific chemical compounds. The average response factor for the Low Concentration VOA Target Compound List (TCL) must be greater than or equal to 0.05 in both initial and continuing calibrations unless the compounds is listed as a "poor performer". The list of "poor performer" analytes is located in the validation documents. A value less than 0.05, (0.01/poor performer) indicates a serious detection and quantitation problem (poor sensitivity). USEPA data validation criteria state that if the minimum RRF criteria are not met in an initial calibration the positive results are qualified "J". Non-detect results in the initial calibration with a RRF <0.05 (0.01/poor performer) are qualified "R", unusable. If RRF criteria are not met in the continuing calibration curve analysis, affected positive analytes will be qualified "J" estimated.

One calibration curve is associated with all of the samples in this data set. The initial calibration curve analysis was performed May 1, 2007 on GC/MS Instrument F. A five (5) point calibration (0.5 ug/l, 1.0 ug/l, 5.0 ug/l, 10 ug/l, 25.0 ug/l) curve was analyzed. The average response factor for all target analytes met QC criteria in this initial calibration curve analysis.

One (1) continuing calibration standard analysis is associated with Laboratory Report Y2469. The continuing calibration standard analysis was performed on May 3, 2007. All response factor criteria were met for all target analytes in the continuing calibration standard analyzed on May 3, 2007.

One (1) continuing calibration standard analysis is associated with Laboratory Report Y2485. The continuing calibration standard analysis was performed on May 8, 2007. All response factor criteria were met for all target analytes in the continuing calibration standard analyzed on May 8, 2007.

Two (2) continuing calibration standard analyses are associated with laboratory report Y2486. The CCV standards were analyzed on May 8, 2007 and May 9, 2007. The response factor criteria were met for all target analytes in each of the continuing calibration standards associated with this data set.

6. GC/MS CALIBRATION (Cont'd):

B) PERCENT RELATIVE STANDARD DEVIATION (RSD) AND PERCENT DIFFERENCE (%D):

Percent RSD is calculated from the initial calibration and is used to indicate the stability of the specific compound response factor over increasing concentration. Percent D compares the response factor of the compounds in the continuing calibration standard to the mean response factor (RRF) from the initial calibration. Percent D is a measure of the instrument's daily performance. Region II data validation criteria states that the percent RSD of the initial calibration curve must be less than or equal to 30%. The analytes listed as "poor performers" must have an RSD of less than or equal to 50%. The %D must be <25% (50% for poor performers) in the continuing calibration standard. This criteria has been applied to all target analytes. A value outside of these limits indicates potential detection and quantitation errors. For these reasons, all positive results are flagged as estimated, "J" and non-detects may be flagged "UJ", based on professional judgement. If %RSD and %D grossly exceed QC criteria (>90%), non-detects data may be qualified "R", unusable. Data associated with this set has been reviewed for the criteria in the cited in the USEPA Data Validation Guidelines.

One (1) initial calibration cure analysis is associated with all samples in this data set. It was performed on GC/MS Instrument F (5/1/07). All %RSD criteria in the initial calibration curve analysis associated with this data set met.

One (1) continuing calibration standard analysis is associated with the samples in Laboratory Report Y2469. The CCV standard associated with this data set was analyzed on May 3, 2007 (File ID: VF006768.D). All %D criteria in the continuing calibration standard met QC criteria.

One (1) continuing calibration standard analysis is associated with the samples in Laboratory Report Y2485. The CCV standard associated with this data set was analyzed on May 8, 2007 (File ID: VF006822.D). All %D criteria in the continuing calibration standard met QC criteria.

Two (2) continuing calibration standard analyses are associated with the samples in Laboratory Report Y2486. The CCV standard associated with this data set was analyzed on May 8, 2007 (File ID: VF006822.D) and May 9, 2007 (File ID: VF006841.D). All %D criteria in each of the continuing calibration standards.

7. INTERNAL STANDARDS PERFORMANCE:

Internal standard (IS) performance criteria ensure that the GC/MS sensitivity and response are stable during every run. The method recommends that the internal standard area count must not vary by more than a factor of 2 (-50-100%) from the associated continuing calibration standard. The method recommends that the retention time of the internal standard must not vary more than ±30 seconds from the associated continuing calibration standard. The EPA CLP validation guidelines state that if the area count is outside the (-50-100%) range of the associated standard, all of the positive results for compounds quantitated using that IS are qualified estimated, "J", and all non-detects below 50% are qualified "UJ", non detects above 100% should not be qualified or "R" if there is a severe loss of sensitivity. The internal standard evaluation criteria have been applied to all field and QC samples.

Each of the samples in this data set was fortified with the Internal Standards, Pentaflurobenzene, 1,4-Difluorobenzene, Chlorobenzene-d5 and 1,4-Dichlorobenzene-d5. All internal standard area counts and retention time shifts met QC criteria in each of the samples associated with this data set.

8. COMPOUND IDENTIFICATION:

Target compounds are identified on the GC/MS by using the analyte's relative retention time (RRT) and by comparison to the ion spectra obtained from known standards. For the results to be a positive hit, the sample peak must be within ± 0.06 RRT units of the standard compound, and have an ion spectra which has a ratio of the primary and secondary ion intensities with 20% of that in the standard compound.

The samples with this data set were analyzed in accordance with EPA Method OLC03.2 as per the COC documents that accompanied the samples to the laboratory. The samples in each of the laboratory reports were analyzed using a 25 ml aliquot of sample. Lower (0.5 ug/L) detection limits were reported on the result forms. A library search for Tentatively Identified Compounds (TIC's) was performed for each sample in this data set and reported. TIC's when detected were reported on the result forms.

Eleven (11) groundwater samples, one (1) Rinse Blank (RB-2) and one (1) Trip Blank sample (TB-3) are associated with Laboratory Report Y2469. Methylene Chloride was detected in both the Trip Blank and Rinse Blank sample in this data set. The Methylene Chloride has been negated in each of the samples (with the exception of the Trip Blank sample) and qualified "U". All of the samples were analyzed without additional dilution and reported to the lowest reporting limit.

Qualified data result pages are located in Appendix B of this report.

Eight (8) samples and one Field Blank sample are associated with Laboratory Report Y2485. All of the samples in this data set were analyzed without additional dilution. Methylene Chloride was detected in the method blank (VBLK01) and Field Blank sample (FB-1). All groundwater samples in this data set were free from contamination of Methylene Chloride with the exception of sample JDR and the Field Blank. Methylene Chloride has been negated in each of these samples and qualified "U".

Qualified data result pages are located in Appendix B of this report.

Four (4) samples and one Trip Blank sample are associated with Laboratory Y2486. All of the samples in this data set were analyzed without additional dilution. Methylene Chloride was detected in the method blank (VBLK01) and the Trip Blank (TB-4) sample. All groundwater samples in this data set were free from contamination of Methylene Chloride with the exception of sample SD. Methylene Chloride has been negated and qualified "U" in sample SD.

Qualified data result pages are located in Appendix B of this report.

ORGANIC DATA ASSESSMENT

9. FIELD DUPLICATE ANALYSIS:

Field duplicate samples are collected and analyzed as an indication of overall precision. These results are expected to have more variability than laboratory duplicate samples. Analytes reported above the reporting limit are listed below. Data was not qualified based on the RPD of field duplicate sample analyses.

Sample KDR (Y2469-03) and 101 (Y2469-10) are field duplicate samples.

Sample ID: KDR (Y2469-03)/101 (Y2469-10)

Analyte	Concentration (ug/L)	Concentration (ug/L)	RPD (%)
Chloroform	0.33	ND	NC
Methylene Chloride	ND	0.98	NC

ND denotes Not Detected
NC denotes Not Calculated

Methylene Chloride was detected in both the Trip Blank and Rinse Blank sample associated with Laboratory Report Y2469. This target analyte is a common laboratory contaminant that was negated when detected in all samples in this data set by this data qualifier.

Sample 102 (Y2485-01) and 31 (Y2485-03) are field duplicate samples. Target analytes were not detected in either field duplicate sample, therefore comparison of field duplicate data was performed.

ORGANIC DATA ASSESSMENT

10. SYSTEM PERFORMANCE AND OVERALL ASSESSMENT:

Analytical QC criteria of the method analyzed were met for the analytical data submitted. The data reported agrees with the raw data provided in the final report. The laboratory provided a complete data package and reported all data using acceptable protocols and laboratory qualifiers as defined in the report package.

The samples in the complete data set were to be analyzed in accordance with the Low Level Volatile Organic method specified by the COC documents (OLC03.2).

Laboratory report Y2469 consisted of thirteen (13) samples that were analyzed for Volatile Organic Analytes. All data was reported in accordance with the cited method.

Laboratory report Y2485 consisted of nine (9) samples that were analyzed for Volatile Organic Analytes. All data was reported in accordance with the cited method.

Laboratory report Y2486 consisted of five (5) aqueous samples that were analyzed for Volatile Organic Analytes. All data was reported in accordance with the cited method.

Methylene Chloride was detected in each of the Trip Blanks associated with these data sets and has been negated in each of the field samples. The sample data associated with the method reported is acceptable for use, with the noted data qualifiers.

Qualified data result pages are located in Appendix B of this report. Appendix E of this report contains a complete set of result forms and QC summary forms without data qualifiers. These are the QC summary forms that were provided in the original data report.

DATA VALIDATION FOR:	**Total and Dissolved Lead and Cadmium Analyses**
SITE:	**NL Industries, Inc. Pedricktown, New Jersey**
PROJECT NUMBER:	**Y2469, Y2485, Y2486**
CONTRACT LAB:	**Chemtech Consulting Mountainside, New Jersey**
REVIEWER:	**Renee Cohen**
DATE REVIEW COMPLETED:	**July, 2007**
MATRIX:	**Aqueous**

The data validation was performed according to the guidelines in the current SOP No. HW-2 (Revision 13), September, 2005 for the Evaluation of Metal Data for the Contract Laboratory Program. All data are considered valid and acceptable except those analytes which have been rejected "R" (unusable/unreliable). Due to various QC problems some analytes may have been qualified with a "J" (estimated), "N" (presumptive evidence for the presence of he material, "U" (non-detect), or "JN" (presumptive evidence for the presence of the material at an estimated value) flag. All actions are detailed on the attached sheets.

The "R" flag means that the associated value is unusable. In other words, significant data bias is evident and the reported analyte concentration is unreliable.

Appendix A of this report contains a copy of the definitions that may be used in this report. Appendix B of this report contains the qualified data result pages associated with this data set. Appendix C of this report contains a copy of the Chain of Custody (COC) documents that accompanied the samples to the laboratory. Appendix D of this report contains copies of all correspondence between this data validator and the laboratory. Appendix E of this report contains a copy of all unqualified data result pages and the QC summary sheets associated with this data set.

OVERVIEW

This data assessment is for a total of twenty five (25) aqueous samples and two (2) Trip Blank samples listed on the Chain of Custody documents that accompanied the samples to the laboratory. Each of the twenty five (25) samples analyzed for Total and Dissolved metals. A cross-reference between Field Sample ID and Laboratory Sample ID is located in Table 1 of this report.

Laboratory Report Y2469 consists of twelve (12) groundwater samples collected April 24, 2007 and April 25, 2007. The samples were received by Chemtech Consulting, located in Mountainside, New Jersey. The samples were received at the laboratory on April 25, 2007 for the analyses requested on Chain of Custody. This data set also included a Trip Blank sample that was analyzed for Volatile Organic Analytes.

Laboratory Report Y2485 consists of eight (8) groundwater samples and one (1) Field Blank samples collected April 25, 2007 and April 26, 2007. The samples were received by Chemtech Consulting, located in Mountainside, New Jersey. The samples were received at the laboratory on April 26, 2007 for the analyses requested on Chain of Custody.

INORGANIC DATA ASSESSMENT

OVERVIEW (cont'd):

Laboratory Report Y2486 consists of four (4) groundwater samples. The samples in this data set were collected April 26, 2007. The samples were received by Chemtech Consulting, located in Mountainside, New Jersey. The samples were received by the laboratory on April 26, 2007. The samples were analyzed for the parameters listed on the chain of custody documents. The samples in this data set were analyzed for Total and Dissolved Lead and Cadmium. The samples were also analyzed for Volatile Organic Analytes. The organic data review is located in the organic section of this validation report.

1. HOLDING TIME

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the specified holding time is exceeded, the data may not be valid. Metals with the exception of Mercury, are required to be digested and analyzed within 180 days of Verified Time of Sample Receipt (VTSR). Mercury samples are to be digested and analyzed within 26 days of VTSR.

Laboratory report Y2469 consisted of eleven (11) groundwater samples and one (1) Rinse Blank sample. Each of these samples was analyzed for Total Cadmium and Lead as well as Dissolved Cadmium and Lead. The samples were collected on April 24, 2007 and April 25, 2007and received at the laboratory on April 25, 2007. The Total Metals were prepared in batch on April 30, 2007. The Dissolved Metals were prepared in one batch on May 4, 2007. Each sample batch was prepared with a preparation blank and blank spike/LCS sample. All of the sample digestates was analyzed in one (1) ICP analytical sequence on May 4, 2007.

Laboratory report Y2485 consisted of eight (8) groundwater samples and one (1) Field Blank sample. Each of these samples was analyzed for Total and Dissolved Cadmium and Lead. The samples were collected on April 25, 2007 and April 26, 2007and received at the laboratory on April 26, 2007. Both the Total and Dissolved metals were prepared in one batch on April 30, 2007. Each of the sample digestates was analyzed in one (1) ICP analytical sequence on May 4, 2007.

Laboratory report Y2486 consisted of four (4) groundwater samples. Each of these samples was analyzed for Total and Dissolved Cadmium and Lead. The samples were collected on April 26, 2007and received at the laboratory on April 26, 2007. Both the Total and Dissolved metals were prepared in one batch on April 30, 2007. Each of the sample digestates was analyzed in one (1) ICP analytical sequence on May 4, 2007.

2. CALIBRATION ANALYSIS

Inductively Coupled Plasma (ICP) was utilized for these analyses. The ICP was calibrated using a single point standard as required by the manufacturer. One (1) initial calibration verification (ICV) standard was then analyzed to verify instrument calibration.

Samples in Laboratory Report Y2469, Y2485 and Y2486 were analyzed in one (1) analytical sequence on May 4, 2007. Recoveries of the ICV standards associated with the analytical sequence met QC criteria. One continuing calibration verification (CCV) standard was then analyzed after each ten (10) field samples. Ten (10) CCV standards are associated with this analytical sequence. The percent recovery of Cadmium and Lead met QC criteria in all CCV standards associated with this data set.

3. CRDL STANDARD

The CRDL standard is used for the verification of instrument linearity near the CRDL. The CRDL standard control limits are 70-130% recovery. If the CRDL standard falls outside of the control limits, associated data less than or equal to the 2X the CRDL are qualified estimated (J or UJ) or rejected (R) depending on the recovery of the CRDL standard and the concentration of the analyte in the sample. When the CRDL standard exceeds the control limit, indicating a high bias, and the associated sample results are non-detect, no action is taken. When the CRDL standard exceeds the control limit, indicating a high bias positive sample results up to two (2) times the CRDL are qualified estimated (J).

Six (6) CRDL standards are associated with the ICP Total and Dissolved Metal analytical sequence analyzed on May 4, 2007. The recovery of Lead and Cadmium in all of the CRDL standards met QC criteria with the exception of that summarized below:

Standard	Analyte	%Recovery
CRI01	Cadmium	135.8
CRI02	Cadmium	151.8
	Lead	159.4
CRI03	Cadmium	157.6
CRI04	Cadmium	140.6
CRI05	Cadmium	0
	Lead	202.4

The samples associated with CRI04 and CRI05 have been reviewed using the result of CRI04. The laboratory did not note in either the raw data or the case narrative the problem associated with this CRI standard. The %RSD between readings of Lead indicated poor precision between the injections/readings. The laboratory was contacted regarding the results of the CRI05 standard. The response indicated that the method has no QC criteria, therefore no action was taken. Action is taken by the data validator and data is qualified based on the recovery of the CRI standards.

A copy of the correspondence between this data validator and the laboratory is located in Appendix D of this report.

Samples in Laboratory Report Y2469 were analyzed between CRI02 and CRI04. Positive detects for Cadmium and Lead have been qualified "J" estimated. Non-detects are acceptable as reported.

Samples in Laboratory Report Y2485 were analyzed between CRI03 and CRI05. Positive detects for Cadmium and Lead have been qualified "J" estimated. Non-detects are acceptable as reported.

Samples in Laboratory Report Y2486were analyzed between CRI01and CRI06. Positive detects for Cadmium and Lead have been qualified "J" estimated. Non-detects are acceptable as reported.

Qualified data result pages are located in Appendix B of this report.

4. INTERFERENCE CHECK STANDARD

The Interference Check Standard (ICS) is used to verify the laboratory interelement and background correction factors of the ICP. Two solutions comprise the ICS A and ICS AB. Solution A consists of the interferent metals while solution AB is the group of target analytes and the interferents metals. An ICS analysis consists of analyzing both solutions consecutively for all wavelengths used for each analyte reported by ICP. ICSAB control limits of 80-120% were applied during review of this data set.

All ICSA and ICSAB recoveries associated with this analytical sequence met QC criteria with the exception of ICSAB04. The recovery of Lead was 121.7%. Positive data results have been qualified "J" estimated. Non-detect sample results are acceptable as reported.

Samples in Laboratory Report Y2469 that were analyzed between ICSAB03 and ICSAB05 were reviewed. Positive Lead results have been qualified "J" estimated. Non-detect sample results "U" are acceptable as reported.

Samples in Laboratory Report Y2485 that were analyzed between ICSAB03 and ICSAB05 were reviewed. Positive Lead results have been qualified "J" estimated. Non-detect sample results "U" are acceptable as reported.

Qualified data result pages are located in Appendix B of this report.

The samples in Laboratory Report Y2486 were analyzed between acceptable ISCAB standards. All QC criteria were met for the associated ICSAB standards, therefore no action was taken.

5. MATRIX SPIKE ANALYSIS

The spike sample analysis provides information about the effect of the sample matrix upon the digestion and measurement methodology. The spike control limits are 75%-125% when the sample concentration is less than four (4) times the spike added. If the matrix spike recoveries fall in the range of 30%-74%, the sample results are may be biased low and are qualified as estimated (J or UJ). If the matrix spike recoveries fall in the range of 126%-200%, sample results may be biased high. Positive results are qualified estimated (J). If the spike recovery is greater than 125% and the reported sample result is less than the IDL the data point is acceptable for use. If the matrix spike recovery is greater than 200%, the associated sample data are unusable and are rejected (R). If matrix spike results are less than 30%, the associated non-detect results are qualified unusable and rejected (R), and the results reported above the IDL are qualified estimated (J).

Chemtech performed a Total Matrix Spike analysis on Site Specific QC Sample 22 (Y2486-1). The percent recovery of both Lead and Cadmium in the Total sample met QC criteria.

Chemtech performed a Dissolved Matrix Spike analysis on Site Specific QC Sample 22 (Y2486-8). The recovery of Cadmium in this analysis was slightly above QC limits (125.6%). The laboratory qualified all Dissolved Cadmium results in this data set with an "N" as required by the method. The Cadmium has been previously qualified "J", therefore no further action has been taken.

Chemtech performed a Dissolved Matrix Spike analysis on Site Specific QC Sample NS (Y2469-14). The percent recovery of Cadmium and Lead in the Dissolved sample met QC criteria.

Chemtech performed a Total Matrix Spike analysis on Site Specific QC Sample JDR (Y2485-4). The percent recovery of both Lead and Cadmium met QC criteria.

Chemtech performed a Dissolved Matrix Spike analysis on Site Specific QC Sample JDR (Y2485-15). The percent recovery of Cadmium in the Dissolved sample met QC criteria. The recovery of Lead in this analysis was slightly above QC limits (125.2%). The laboratory qualified all Total Lead results in this data set with an "N" as required by the method.

6. POST DIGESTION SPIKE ANALYSIS

The post digestion spike sample analysis provides additional information about the effect of the sample matrix upon the digestion and measurement methodology. The post digestion spike is performed for each analyte that the pre-digestion spike recovery falls outside the 75-125% control limit.

Post digestion spike analysis was not performed by Chemtech Constulting in the laboratory reports associated with these data sets.

7. DUPLICATE SAMPLE ANALYSIS

The duplicate sample analysis is used to evaluate the precision of the methods for each parameter. If the duplicate sample analysis results for a particular analyte fall outside the control windows of 20% RPD or =/- CRDL, whichever is appropriate depending upon the concentration of the sample, the associated sample results are qualified "J" estimated.

Chemtech performed laboratory duplicate analysis on Total Site Specific sample 22 (Y2486-01). The relative percent difference of Lead and Cadmium in the Total duplicate sample analysis met QC criteria for Lead and Cadmium.

Chemtech performed laboratory duplicate analysis on Dissolved Site Specific sample 22 (Y2486-08). The relative percent difference of Lead and Cadmium in the Dissolved duplicate sample analysis met QC criteria for Lead and Cadmium.

Chemtech performed laboratory duplicate analysis on Dissolved Site Specific sample NS (Y2469-14). The RPD of Cadmium was 44.7. This is acceptable because both results were reported with "J qualifiers by the laboratory. Lead was not detected in either the sample or duplicate sample result.

Chemtech performed laboratory duplicate analysis on Site Specific sample JDR (Y2485-4, Y2485-15). The relative percent difference of Lead and Cadmium in both the Total and Dissolved duplicate sample analysis met QC criteria for Lead and Cadmium.

8. ICP SERIAL DILUTION ANALYSIS

The serial dilution analysis indicates whether significant physical or chemical interference's exist due to the sample matrix. If the concentration of any analyte in the original sample is greater than 50 times the instrument detection limit (IDL), an analysis of a 5-fold dilution samples must yield results which have a percent difference (%D) of less than or equal to 10 with the original sample results. If the %D of the serial dilution exceeds the 10% (and is not greater than 100%) for a particular analyte, all the associated sample results are qualified estimated (J).

Chemtech performed Total ICP Serial Dilution analysis on Site Specific Sample 22 (Y2486-01). % Difference criteria were met in this sample set.

Chemtech performed Dissolved ICP Serial Dilution analysis on Site Specific Sample 22 (Y2486-08). % Difference criteria were met in this sample set.

Chemtech performed Dissolved ICP Serial Dilution analysis on Site Specific Sample NS (Y2469-14). % Difference criteria were met in this sample set.

Chemtech performed Total and Dissolved ICP Serial Dilution analysis on Site Specific Sample JDR (Y2485-4, Y2485-15). The % Difference criteria were met for both Total Lead and Cadmium. The %Difference criteria was met for Dissolved Lead. The %Difference of Lead in the ICP Serial Dilution analysis was 12.5%. The laboratory qualified the Dissolved Lead data in the samples associated with this data set "E" as required by the method.

INORGANIC DATA ASSESSMENT

9. BLANKS

Blank analyses are assessed to determine the existence and magnitude of contamination problems. The criterion used for the evaluation of blanks applies to all blanks, including but not limited to reagent blanks, method blanks and field blanks. The responsibility for action in the case of an unsuitable blank result depends upon the circumstances and the origin of the blank itself. If the problem with any blank exists, then all associated data must be carefully evaluated to determine whether there is inherent variability in the data for that case, or the problem is an isolated occurrence not affecting other data.

The samples in Laboratory Report Y2469 are prepared in two batches. One (1) preparation blank sample is associated with the Total Metal analyses. One (1) preparation blank sample is associated with the Dissolved Metal analyses. The total preparation blank contains Cadmium at a concentration of 1.56 J ug/l. The dissolved preparation blank contains Cadmium at a concentration of 1.42 J ug/l. Cadmium has been negated in all samples when the concentration is greater than the MDL and less than the CRQL.

Qualified data result pages are located in Appendix B of this report.

The total and dissolved samples in Laboratory Report Y2485 were prepared in one (1) batch. The concentration of Cadmium in this preparation blank sample is 1.47 J ug/l. Cadmium has been qualified "UJ/J" estimated in all samples due to other QC outliers. No additional action was taken based on the preparation blank contamination.

The total and dissolved samples in Laboratory Report Y2486 were prepared in one (1) batch on April 30, 2007. The concentration of Cadmium in this preparation blank sample is 1.56 J ug/l. Cadmium has been qualified "UJ/J" estimated in all samples due to other QC outliers. No additional action was taken based on the preparation blank contamination.

The Rinse Blank sample (RB-2 /Y2469-07) was analyzed for both Total Cadmium and Total Lead. The Rinse Blank sample was free from contamination of both Total Cadmium and Lead.

The Rinse Blank sample (RB-2 /Y2469-20) was analyzed for both Dissolved Cadmium and Lead. The dissolved Rinse Blank sample contained Cadmium at a concentration of 1.1 J ug/l. The dissolved rinse blank sample was free from contamination of both dissolved Lead. Based on the contamination of Cadmium in the preparation blank sample Cadmium detected between the MDL and the CRQL has been negated and qualified "U".

Qualified data result pages are located in Appendix B of this report.

Sample FB-1 was reported in Laboratory Report Y2485. The total and dissolved Field Blank sample (Y2485-09, Y2485-20) was free from contamination of Lead and Cadmium.

INORGANIC DATA ASSESSMENT

10. LABORATORY CONTROL SAMPLE ANALYSIS

The laboratory control sample (LCS) analysis provides information about the efficiency of the digestion procedure. If the recovery of any analyte is outside the established control limits (aqueous 80%-120%), then laboratory performance and method accuracy are in question. Professional judgment is used to determine of data should be qualified or rejected.

One (1) LCS standard sample is associated with the Total Lead and Cadmium analysis in the samples associated with laboratory report Y2469. The LCS sample met QC criteria for both Total Cadmium and Lead.

One (1) LCS standard sample is associated with the Dissolved Lead and Cadmium analysis in the samples associated with laboratory report Y2469. The LCS sample met QC criteria for both Dissolved Cadmium and Lead.

One (1) LCS standard sample is associated with both the Total and Dissolved Lead and Cadmium analysis in the samples associated with laboratory report Y2485. The LCS sample met QC criteria for both Cadmium and Lead.

One (1) LCS standard sample is associated with both the Total and Dissolved Lead and Cadmium analysis in the samples associated with laboratory report Y2486. The LCS sample met QC criteria for both Cadmium and Lead.

11. SAMPLE RESULTS DATA

This data report combines the results of the groundwater samples collected April 23-24, 2007. Chemtech Laboratories these samples in three (3) data reports (Y2469, Y2485 and Y2486). This review is for of the data sets. The samples in this data set were analyzed for Total and Dissolved Metals based on the method ILM04.1. Data was reviewed using the current USEPA Region 2 data review SOP.

Each of the samples was analyzed and reported without dilution. A review of Total and Dissolved sample results was performed. The data results associated with this data set are acceptable for use with the noted data qualifiers. Data qualifiers have been described in the section associated with the QC outliers.

INORGANIC DATA ASSESSMENT

12 FIELD DUPLICATE DATA

Field duplicate samples are collected and analyzed as an indication of overall precision. These results are expected to have more variability than laboratory duplicate samples. Soil samples will have a greater variance due to the difficulties associated with collecting exact duplicate soil samples than aqueous samples. Data was not qualified based on the results of the field duplicate sample data.

Total Metal Analyses
KDR (Y2469-03)/101 (Y2469-10)

Analyte	Result ug/l	Result ug/l	RPD%
Cadmium	141	139	1.4
Lead	3.0 U	3.0 U	NC

Dissolved Metal Analyses
KDR (Y2469-03)/101 (Y2469-10)

Analyte	Result ug/l	Result ug/l	RPD%
Cadmium	166	144	14.2
Lead	3.0 U	3.0 U	NC

Total Metal Analyses
102 (Y2485-01)/31 (Y2485-02)

Analyte	Result ug/l	Result ug/l	RPD%
Cadmium	1.2 J	1.5 J	22.2
Lead	17.0	20.6	19.1

Dissolved Metal Analyses
102 (Y2485-12)/31 (Y2485-13)

Analyte	Result ug/l	Result ug/l	RPD%
Cadmium	ND	1.0 J	NC
Lead	ND	ND	NC

U denotes not detected at the CRQL (Contract Required Quantitation Limit)
NC denotes not calculated

INORGANIC DATA ASSESSMENT

13. INSTRUMENT QC DATA

The laboratory is required by the method to perform specific instrument verification tests on a specific timeframe. Based on a review of the QC summary forms included in the data report, Chemtech performed the required studies specified by the method in the correct time-frame.

14. SYSTEM PERFORMANCE AND OVERALL ASSESSMENT

This data set included Laboratory Reports Y2469, Y2485 and Y2486. Samples were collected April 23, 2007 and April 26, 2007. Each of the samples was analyzed for Total and Dissolved Lead and Cadmium. The samples were analyzed in accordance with Inorganic CLP Method ILM04.1. The sample results have been reported in accordance with the cited method.

The sample data has been qualified based on the cited data validation documents. The data associated with this data set is acceptable for use with the noted data qualifiers.

Qualified data result pages are located in Appendix B of this report.

TABLE 1

2815 COVERED BRIDGE ROAD, MERRICK, NEW YORK 11566
(516) 223-9761 • FAX (516) 223-0983

CLIENT SAMPLE ID	LABORATORY SAMPLE ID
NS	Y2469-01
ND	Y2469-02
KDR	Y2469-03
KSR	Y2469-04
17	Y2469-05
16	Y2469-06
RB-2	Y2469-07
12	Y2469-08
26	Y2469-09
101	Y2469-10
11	Y2469-11
BR	Y2469-12
TB-3	Y2469-13
NS	Y2469-14
ND	Y2469-15
KDR	Y2469-16
KSR	Y2469-17
17	Y2469-18
16	Y2469-19
RB-2	Y2469-20
12	Y2469-21
26	Y2469-22
101	Y2469-23
11	Y2469-24
BR	Y2469-25

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CLIENT SAMPLE ID	LABORATORY SAMPLE ID
102	Y2485-01
31	Y2485-02
32	Y2485-03
JDR	Y2485-04
JDR-MS	Y2485-05
JDR-MSD	Y2485-06
JS	Y2485-07
24	Y2485-08
FB-1	Y2485-09
23	Y2485-10
30R	Y2485-11
102	Y2485-12
31	Y2485-13
32	Y2485-14
JDR	Y2485-15
JDR-MS	Y2485-16
JDR-MSD	Y2485-17
JS	Y2485-18
24	Y2485-19
FB-1	Y2485-20
23	Y2485-21
30R	Y2485-22

CLIENT SAMPLE ID	LABORATORY SAMPLE ID
22	Y2486-01
22-MS	Y2486-02
22-MSD	Y2486-03
OS	Y2486-04
SS	Y2486-05
SD	Y2486-06
TB-4	Y2485-07
22	Y2486-08
22-MS	Y2486-09
22-MSD	Y2486-10
OS	Y2486-11
SS	Y2486-12
SD	Y2486-13

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APPENDIX A

2815 COVERED BRIDGE ROAD, MERRICK, NEW YORK 11566
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DATA QUALIFIER DEFINITIONS

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

N - The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."

NJ - The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

UJ - The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R - The sample results are unreliable/unusable. The presence or absence of the analyte cannot be verified.

K – The analyte is present. The reported value may be biased high. The actual value is expected to be lower than reported.

L - The analyte is present. The reported value may be biased low. The actual value is expected to be higher than reported.

UL – The analyte was not detected, and the reported quantitation limit is probably higher than reported.

APPENDIX B

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

KDR

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2469 SAS No.: Y2469 SDG No.: Y2469

Matrix (soil/water): WATER Lab Sample ID: Y2469-03

Sample wt/vol: 25.0 (g/mL) ml Lab File ID: VF006776.D

Level (low/med): Date Received: 4/25/07

% Moisture: not dec. 100 Date Analyzed: 5/3/07

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS No.	Compound	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
76-13-1	1,1,2-Trichlorotrifluoroethan	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
67-64-1	Acetone	2.5	U
75-15-0	Carbon disulfide	0.50	U
1634-04-4	Methyl tert-butyl Ether	0.50	U
79-20-9	Methyl Acetate	0.50	U
75-09-2	Methylene Chloride	0.33	J U
156-60-5	trans-1,2-Dichloroethene	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
78-93-3	2-Butanone	2.5	U
56-23-5	Carbon Tetrachloride	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
108-87-2	Methylcyclohexane	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
108-10-1	4-Methyl-2-Pentanone	2.5	U
108-88-3	Toluene	0.50	U
10061-02-6	t-1,3-Dichloropropene	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

KDR

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2469 SAS No.: Y2469 SDG No.: Y2469

Matrix (soil/water): WATER Lab Sample ID: Y2469-03

Sample wt/vol: 25.0 (g/mL) ml Lab File ID: VF006776.D

Level (low/med): Date Received: 4/25/07

% Moisture: not dec. 100 Date Analyzed: 5/3/07

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS No.	Compound	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
591-78-6	2-Hexanone	2.5	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethyl Benzene	0.50	U
126777-61-2	m&p-xylenes	0.50	U
95-47-6	o-xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U
1330-20-7	Total Xylenes	1.0	U

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

KDR

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2469 SAS No.: Y2469 SDG No.: Y2469

Matrix (soil/water): WATER Lab Sample ID: Y2469-03

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: VF006776.D

Level (low/med): Date Received: 4/25/2007

% Moisture: not dec. 100 Date Analyzed: 5/3/2007

GC Column: RTX624 ID: 0.53 Dilution Factor: 1.0

Soil Extract Volume: Soil Aliquot Volume:

Number TICS found: 0 CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NO.	COMPOUND	RT	EST. CONC.	Q

Comments:

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

KSR

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2469 SAS No.: Y2469 SDG No.: Y2469

Matrix (soil/water): WATER Lab Sample ID: Y2469-04

Sample wt/vol: 25.0 (g/mL) ml Lab File ID: VF006777.D

Level (low/med): Date Received: 4/25/07

% Moisture: not dec. 100 Date Analyzed: 5/3/07

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS No.	Compound	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
76-13-1	1,1,2-Trichlorotrifluoroethan	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
67-64-1	Acetone	2.5	U
75-15-0	Carbon disulfide	0.50	U
1634-04-4	Methyl tert-butyl Ether	0.50	U
79-20-9	Methyl Acetate	0.50	U
75-09-2	Methylene Chloride	0.28	~~U~~
156-60-5	trans-1,2-Dichloroethene	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
78-93-3	2-Butanone	2.5	U
56-23-5	Carbon Tetrachloride	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
108-87-2	Methylcyclohexane	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
108-10-1	4-Methyl-2-Pentanone	2.5	U
108-88-3	Toluene	0.50	U
10061-02-6	t-1,3-Dichloropropene	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

KSR

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2469 SAS No.: Y2469 SDG No.: Y2469

Matrix (soil/water): WATER Lab Sample ID: Y2469-04

Sample wt/vol: 25.0 (g/mL) ml Lab File ID: VF006777.D

Level (low/med): Date Received: 4/25/07

% Moisture: not dec. 100 Date Analyzed: 5/3/07

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS No.	Compound	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
591-78-6	2-Hexanone	2.5	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethyl Benzene	0.50	U
126777-61-2	m&p-xylenes	0.50	U
95-47-6	o-xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U
1330-20-7	Total Xylenes	1.0	U

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

KSR

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2469 SAS No.: Y2469 SDG No.: Y2469

Matrix (soil/water): WATER Lab Sample ID: Y2469-04

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: VF006777.D

Level (low/med): Date Received: 4/25/2007

% Moisture: not dec. 100 Date Analyzed: 5/3/2007

GC Column: RTX624 ID: 0.53 Dilution Factor: 1.0

Soil Extract Volume: Soil Aliquot Volume:

Number TICS found: 0 CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NO.	COMPOUND	RT	EST. CONC.	Q

Comments:

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

17

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2469 SAS No.: Y2469 SDG No.: Y2469

Matrix (soil/water): WATER Lab Sample ID: Y2469-05

Sample wt/vol: 25.0 (g/mL) ml Lab File ID: VF006778.D

Level (low/med): Date Received: 4/25/07

% Moisture: not dec. 100 Date Analyzed: 5/3/07

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS No.	Compound	(ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
76-13-1	1,1,2-Trichlorotrifluoroethan	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
67-64-1	Acetone	2.5	U
75-15-0	Carbon disulfide	0.50	U
1634-04-4	Methyl tert-butyl Ether	0.50	U
79-20-9	Methyl Acetate	0.50	U
75-09-2	Methylene Chloride	0.31	J U
156-60-5	trans-1,2-Dichloroethene	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
78-93-3	2-Butanone	2.5	U
56-23-5	Carbon Tetrachloride	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
108-87-2	Methylcyclohexane	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
108-10-1	4-Methyl-2-Pentanone	2.5	U
108-88-3	Toluene	0.50	U
10061-02-6	t-1,3-Dichloropropene	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

17

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2469 SAS No.: Y2469 SDG No.: Y2469

Matrix (soil/water): WATER Lab Sample ID: Y2469-05

Sample wt/vol: 25.0 (g/mL) ml Lab File ID: VF006778.D

Level (low/med): Date Received: 4/25/07

% Moisture: not dec. 100 Date Analyzed: 5/3/07

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS No.	Compound	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
591-78-6	2-Hexanone	2.5	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethyl Benzene	0.50	U
126777-61-2	m&p-xylenes	0.50	U
95-47-6	o-xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U
1330-20-7	Total Xylenes	1.0	U

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

17

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2469 SAS No.: Y2469 SDG No.: Y2469

Matrix (soil/water): WATER Lab Sample ID: Y2469-05

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: VF006778.D

Level (low/med): Date Received: 4/25/2007

% Moisture: not dec. 100 Date Analyzed: 5/3/2007

GC Column: RTX624 ID: 0.53 Dilution Factor: 1.0

Soil Extract Volume: Soil Aliquot Volume:

Number TICS found: 0 CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NO.	COMPOUND	RT	EST. CONC.	Q

Comments:

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

16

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2469 SAS No.: Y2469 SDG No.: Y2469

Matrix (soil/water): WATER Lab Sample ID: Y2469-06

Sample wt/vol: 25.0 (g/mL) ml Lab File ID: VF006779.D

Level (low/med): Date Received: 4/25/07

% Moisture: not dec. 100 Date Analyzed: 5/3/07

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS No.	Compound	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
76-13-1	1,1,2-Trichlorotrifluoroethan	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
67-64-1	Acetone	2.5	U
75-15-0	Carbon disulfide	0.50	U
1634-04-4	Methyl tert-butyl Ether	0.69	
79-20-9	Methyl Acetate	0.50	U
75-09-2	Methylene Chloride	0.26	J U
156-60-5	trans-1,2-Dichloroethene	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
78-93-3	2-Butanone	2.5	U
56-23-5	Carbon Tetrachloride	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
108-87-2	Methylcyclohexane	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
108-10-1	4-Methyl-2-Pentanone	2.5	U
108-88-3	Toluene	0.50	U
10061-02-6	t-1,3-Dichloropropene	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

16

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2469 SAS No.: Y2469 SDG No.: Y2469

Matrix (soil/water): WATER Lab Sample ID: Y2469-06

Sample wt/vol: 25.0 (g/mL) ml Lab File ID: VF006779.D

Level (low/med): Date Received: 4/25/07

% Moisture: not dec. 100 Date Analyzed: 5/3/07

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS No.	Compound	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
591-78-6	2-Hexanone	2.5	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethyl Benzene	0.50	U
126777-61-2	m&p-xylenes	0.50	U
95-47-6	o-xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U
1330-20-7	Total Xylenes	1.0	U

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

16

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2469 SAS No.: Y2469 SDG No.: Y2469

Matrix (soil/water): WATER Lab Sample ID: Y2469-06

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: VF006779.D

Level (low/med): Date Received: 4/25/2007

% Moisture: not dec. 100 Date Analyzed: 5/3/2007

GC Column: RTX624 ID: 0.53 Dilution Factor: 1.0

Soil Extract Volume: Soil Aliquot Volume:

Number TICS found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L

CAS NO.	COMPOUND	RT	EST. CONC.	Q

Comments:

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RB-2

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2469 SAS No.: Y2469 SDG No.: Y2469

Matrix (soil/water): WATER Lab Sample ID: Y2469-07

Sample wt/vol: 25.0 (g/mL) ml Lab File ID: VF006780.D

Level (low/med): Date Received: 4/25/07

% Moisture: not dec. 100 Date Analyzed: 5/3/07

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS No.	Compound	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
76-13-1	1,1,2-Trichlorotrifluoroethan	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
67-64-1	Acetone	2.5	U
75-15-0	Carbon disulfide	0.50	U
1634-04-4	Methyl tert-butyl Ether	0.50	U
79-20-9	Methyl Acetate	0.50	U
75-09-2	Methylene Chloride	2.0	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
78-93-3	2-Butanone	2.5	U
56-23-5	Carbon Tetrachloride	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
108-87-2	Methylcyclohexane	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
108-10-1	4-Methyl-2-Pentanone	2.5	U
108-88-3	Toluene	0.33	J
10061-02-6	t-1,3-Dichloropropene	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RB-2

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2469 SAS No.: Y2469 SDG No.: Y2469

Matrix (soil/water): WATER Lab Sample ID: Y2469-07

Sample wt/vol: 25.0 (g/mL) ml Lab File ID: VF006780.D

Level (low/med): Date Received: 4/25/07

% Moisture: not dec. 100 Date Analyzed: 5/3/07

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS No.	Compound	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
591-78-6	2-Hexanone	2.5	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethyl Benzene	0.50	U
126777-61-2	m&p-xylenes	0.50	U
95-47-6	o-xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U
1330-20-7	Total Xylenes	1.0	U

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RB-2

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2469 SAS No.: Y2469 SDG No.: Y2469

Matrix (soil/water): WATER Lab Sample ID: Y2469-07

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: VF006780.D

Level (low/med): Date Received: 4/25/2007

% Moisture: not dec. 100 Date Analyzed: 5/3/2007

GC Column: RTX624 ID: 0.53 Dilution Factor: 1.0

Soil Extract Volume: Soil Aliquot Volume:

Number TICS found: 0 CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NO.	COMPOUND	RT	EST. CONC.	Q

Comments:

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

11

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2469 SAS No.: Y2469 SDG No.: Y2469

Matrix (soil/water): WATER Lab Sample ID: Y2469-11

Sample wt/vol: 25.0 (g/mL) ml Lab File ID: VF006784.D

Level (low/med): Date Received: 4/25/07

% Moisture: not dec. 100 Date Analyzed: 5/3/07

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS No.	Compound	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
76-13-1	1,1,2-Trichlorotrifluoroethan	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
67-64-1	Acetone	2.5	U
75-15-0	Carbon disulfide	0.50	U
1634-04-4	Methyl tert-butyl Ether	0.50	U
79-20-9	Methyl Acetate	0.50	U
75-09-2	Methylene Chloride	0.39	J U
156-60-5	trans-1,2-Dichloroethene	0.50	U
75-34-3	1,1-Dichloroethane	0.99	
110-82-7	Cyclohexane	0.50	U
78-93-3	2-Butanone	2.5	U
56-23-5	Carbon Tetrachloride	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.68	
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	2.8	
108-87-2	Methylcyclohexane	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	0.29	J
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
108-10-1	4-Methyl-2-Pentanone	2.5	U
108-88-3	Toluene	0.50	U
10061-02-6	t-1,3-Dichloropropene	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.: 11

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2469 SAS No.: Y2469 SDG No.: Y2469

Matrix (soil/water): WATER Lab Sample ID: Y2469-11

Sample wt/vol: 25.0 (g/mL) ml Lab File ID: VF006784.D

Level (low/med): Date Received: 4/25/07

% Moisture: not dec. 100 Date Analyzed: 5/3/07

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS No.	Compound	(ug/L or ug/Kg) ug/L	Q
591-78-6	2-Hexanone	2.5	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
127-18-4	Tetrachloroethene	1.1	
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethyl Benzene	0.50	U
126777-61-2	m&p-xylenes	0.50	U
95-47-6	o-xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U
1330-20-7	Total Xylenes	1.0	U

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

11

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2469 SAS No.: Y2469 SDG No.: Y2469

Matrix (soil/water): WATER Lab Sample ID: Y2469-11

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: VF006784.D

Level (low/med): Date Received: 4/25/2007

% Moisture: not dec. 100 Date Analyzed: 5/3/2007

GC Column: RTX624 ID: 0.53 Dilution Factor: 1.0

Soil Extract Volume: Soil Aliquot Volume:

Number TICS found: 0 CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NO.	COMPOUND	RT	EST. CONC.	Q

Comments:

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FB-1

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2485 SAS No.: Y2485 SDG No.: Y2485

Matrix (soil/water): WATER Lab Sample ID: Y2485-09

Sample wt/vol: 25.0 (g/mL) ml Lab File ID: VF006825.D

Level (low/med): Date Received: 4/26/07

% Moisture: not dec. 100 Date Analyzed: 5/8/07

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS No.	Compound	(ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
76-13-1	1,1,2-Trichlorotrifluoroethan	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
67-64-1	Acetone	9.4	
75-15-0	Carbon disulfide	0.50	U
1634-04-4	Methyl tert-butyl Ether	0.50	U
79-20-9	Methyl Acetate	0.50	U
75-09-2	Methylene Chloride	3.0	~~B~~ U
156-60-5	trans-1,2-Dichloroethene	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
78-93-3	2-Butanone	2.5	U
56-23-5	Carbon Tetrachloride	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
108-87-2	Methylcyclohexane	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
108-10-1	4-Methyl-2-Pentanone	2.5	U
108-88-3	Toluene	0.37	J
10061-02-6	t-1,3-Dichloropropene	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FB-1

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2485 SAS No.: Y2485 SDG No.: Y2485

Matrix (soil/water): WATER Lab Sample ID: Y2485-09

Sample wt/vol: 25.0 (g/mL) ml Lab File ID: VF006825.D

Level (low/med): Date Received: 4/26/07

% Moisture: not dec. 100 Date Analyzed: 5/8/07

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS No.	Compound	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
591-78-6	2-Hexanone	2.5	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethyl Benzene	0.50	U
126777-61-2	m&p-xylenes	0.50	U
95-47-6	o-xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U
1330-20-7	Total Xylenes	1.0	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

FB-1

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2485 SAS No.: Y2485 SDG No.: Y2485

Matrix (soil/water): WATER Lab Sample ID: Y2485-09

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: VF006825.D

Level (low/med): Date Received: 4/26/2007

% Moisture: not dec. 100 Date Analyzed: 5/8/2007

GC Column: RTX624 ID: 0.53 Dilution Factor: 1.0

Soil Extract Volume: Soil Aliquot Volume:

Number TICS found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L

CAS NO.	COMPOUND	RT	EST. CONC.	Q

Comments:

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

JDR

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2485 SAS No.: Y2485 SDG No.: Y2485

Matrix (soil/water): WATER Lab Sample ID: Y2485-04

Sample wt/vol: 25.0 (g/mL) ml Lab File ID: VF006829.D

Level (low/med): Date Received: 4/26/07

% Moisture: not dec. 100 Date Analyzed: 5/8/07

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS No.	Compound	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
76-13-1	1,1,2-Trichlorotrifluoroethan	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
67-64-1	Acetone	2.5	U
75-15-0	Carbon disulfide	0.50	U
1634-04-4	Methyl tert-butyl Ether	0.50	U
79-20-9	Methyl Acetate	0.50	U
75-09-2	Methylene Chloride	0.28 0.50 JB U	
156-60-5	trans-1,2-Dichloroethene	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
78-93-3	2-Butanone	2.5	U
56-23-5	Carbon Tetrachloride	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
108-87-2	Methylcyclohexane	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
108-10-1	4-Methyl-2-Pentanone	2.5	U
108-88-3	Toluene	0.50	U
10061-02-6	t-1,3-Dichloropropene	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

JDR

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2485 SAS No.: Y2485 SDG No.: Y2485

Matrix (soil/water): WATER Lab Sample ID: Y2485-04

Sample wt/vol: 25.0 (g/mL) ml Lab File ID: VF006829.D

Level (low/med): Date Received: 4/26/07

% Moisture: not dec. 100 Date Analyzed: 5/8/07

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS No.	Compound	(ug/L or ug/Kg) ug/L	Q
591-78-6	2-Hexanone	2.5	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethyl Benzene	0.50	U
126777-61-2	m&p-xylenes	0.50	U
95-47-6	o-xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U
1330-20-7	Total Xylenes	1.0	U

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

JDR

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2485 SAS No.: Y2485 SDG No.: Y2485

Matrix (soil/water): WATER Lab Sample ID: Y2485-04

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: VF006829.D

Level (low/med): Date Received: 4/26/2007

% Moisture: not dec. 100 Date Analyzed: 5/8/2007

GC Column: RTX624 ID: 0.53 Dilution Factor: 1.0

Soil Extract Volume: Soil Aliquot Volume:

Number TICS found: 0 CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NO.	COMPOUND	RT	EST. CONC.	Q

Comments:

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SD

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2486 SAS No.: Y2486 SDG No.: Y2486

Matrix (soil/water): WATER Lab Sample ID: Y2486-06

Sample wt/vol: 25.0 (g/mL) ml Lab File ID: VF006846.D

Level (low/med): Date Received: 4/26/07

% Moisture: not dec. 100 Date Analyzed: 5/9/07

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS No.	Compound	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
76-13-1	1,1,2-Trichlorotrifluoroethan	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
67-64-1	Acetone	2.5	U
75-15-0	Carbon disulfide	0.68	
1634-04-4	Methyl tert-butyl Ether	0.50	U
79-20-9	Methyl Acetate	0.50	U
75-09-2	Methylene Chloride	~~0.37~~ 0.50	~~J~~ U
156-60-5	trans-1,2-Dichloroethene	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
78-93-3	2-Butanone	2.5	U
56-23-5	Carbon Tetrachloride	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	2.4	
71-55-6	1,1,1-Trichloroethane	0.50	U
108-87-2	Methylcyclohexane	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
108-10-1	4-Methyl-2-Pentanone	2.5	U
108-88-3	Toluene	0.50	J
10061-02-6	t-1,3-Dichloropropene	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U

(20)

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SD

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2486 SAS No.: Y2486 SDG No.: Y2486

Matrix (soil/water): WATER Lab Sample ID: Y2486-06

Sample wt/vol: 25.0 (g/mL) ml Lab File ID: VF006846.D

Level (low/med): Date Received: 4/26/07

% Moisture: not dec. 100 Date Analyzed: 5/9/07

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS No.	Compound	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
591-78-6	2-Hexanone	2.5	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethyl Benzene	0.35	J
126777-61-2	m&p-xylenes	0.90	
95-47-6	o-xylene	0.37	J
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U
1330-20-7	Total Xylenes	1.3	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SD

Lab Name: Chemtech Contract: CONS02

Lab Code: CTECH Case No.: Y2486 SAS No.: Y2486 SDG No.: Y2486

Matrix (soil/water): WATER Lab Sample ID: Y2486-06

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: VF006846.D

Level (low/med): Date Received: 4/26/2007

% Moisture: not dec. 100 Date Analyzed: 5/9/2007

GC Column: RTX624 ID: 0.53 Dilution Factor: 1.0

Soil Extract Volume: Soil Aliquot Volume:

Number TICS found: 0 CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NO.	COMPOUND	RT	EST. CONC.	Q

Comments:

Metals

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

NS

Lab Name: Chemtech Consulting Group Contract: Construction Services Int.

Lab Code: CHEMED Case No.: Y2469 NRAS No.: Y2469 SDG NO.: Y2469

Matrix (soil/water): WATER Lab Sample ID: Y2469-01

Level (low/med): LOW Date Received: 04/25/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-43-9	Cadmium	1.5	U	U	P
7439-92-1	Lead	41.6			P

J

Color Before: Colourless Clarity Before: Clear Texture:

Color After: Colourless Clarity After: Clear Artifacts:

Comments:

Metals

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ND

Lab Name: Chemtech Consulting Group Contract: Construction Services Int.

Lab Code: CHEMED Case No.: Y2469 NRAS No.: Y2469 SDG NO.: Y2469

Matrix (soil/water): WATER Lab Sample ID: Y2469-02

Level (low/med): LOW Date Received: 04/25/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-43-9	Cadmium	5.0	U		P
7439-92-1	Lead	22.2			P

J

Color Before: Colourless Clarity Before: Clear Texture:

Color After: Colourless Clarity After: Clear Artifacts:

Comments:

Metals

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

KDR

Lab Name: Chemtech Consulting Group Contract: Construction Services Int.

Lab Code: CHEMED Case No.: Y2469 NRAS No.: Y2469 SDG NO.: Y2469

Matrix (soil/water): WATER Lab Sample ID: Y2469-03

Level (low/med): LOW Date Received: 04/25/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-43-9	Cadmium	141			P
7439-92-1	Lead	3.0	U		P

J

Color Before: Colourless Clarity Before: Clear Texture:

Color After: Colourless Clarity After: Clear Artifacts:

Comments:

Metals

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

KSR

Lab Name: Chemtech Consulting Group Contract: Construction Services Int.

Lab Code: CHEMED Case No.: Y2469 NRAS No.: Y2469 SDG NO.: Y2469

Matrix (soil/water): WATER Lab Sample ID: Y2469-04

Level (low/med): LOW Date Received: 04/25/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M	
7440-43-9	Cadmium	7.8			P	J
7439-92-1	Lead	3.0	U		P	

Color Before: Colourless Clarity Before: Clear Texture:

Color After: Colourless Clarity After: Clear Artifacts:

Comments:

Metals

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

26

Lab Name: Chemtech Consulting Group Contract: Construction Services Int.

Lab Code: CHEMED Case No.: Y2469 NRAS No.: Y2469 SDG NO.: Y2469

Matrix (soil/water): WATER Lab Sample ID: Y2469-09

Level (low/med): LOW Date Received: 04/25/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-43-9	Cadmium	12.6			P
7439-92-1	Lead	1.4	J		P

Color Before: Colourless Clarity Before: Clear Texture:

Color After: Colourless Clarity After: Clear Artifacts:

Comments:

Metals

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

101

Lab Name: Chemtech Consulting Group Contract: Construction Services Int.

Lab Code: CHEMED Case No.: Y2469 NRAS No.: Y2469 SDG NO.: Y2469

Matrix (soil/water): WATER Lab Sample ID: Y2469-10

Level (low/med): LOW Date Received: 04/25/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-43-9	Cadmium	139			P
7439-92-1	Lead	3.0	U		P

J

Color Before: Colourless Clarity Before: Clear Texture:

Color After: Colourless Clarity After: Clear Artifacts:

Comments:

Metals

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

11

Lab Name: Chemtech Consulting Group Contract: Construction Services Int.

Lab Code: CHEMED Case No.: Y2469 NRAS No.: Y2469 SDG NO.: Y2469

Matrix (soil/water): WATER Lab Sample ID: Y2469-11

Level (low/med): LOW Date Received: 04/25/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-43-9	Cadmium	110			P
7439-92-1	Lead	3.0	U		P

J

Color Before: Colourless Clarity Before: Clear Texture:

Color After: Colourless Clarity After: Clear Artifacts:

Comments:

Metals

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BR

Lab Name: Chemtech Consulting Group Contract: Construction Services Int.

Lab Code: CHEMED Case No.: Y2469 NRAS No.: Y2469 SDG NO.: Y2469

Matrix (soil/water): WATER Lab Sample ID: Y2469-12

Level (low/med): LOW Date Received: 04/25/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-43-9	Cadmium	1.1	U	U	P
7439-92-1	Lead	3.0	U		P

Color Before: Colourless Clarity Before: Clear Texture:

Color After: Colourless Clarity After: Clear Artifacts:

Comments:

Metals

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

NS

Lab Name: Chemtech Consulting Group Contract: Construction Services Int.

Lab Code: CHEMED Case No.: Y2469 NRAS No.: Y2469 SDG NO.: Y2469

Matrix (soil/water): WATER Lab Sample ID: Y2469-14

Level (low/med): LOW Date Received: 04/25/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-43-9	Cadmium	1.4	J	B	P
7439-92-1	Lead	3.0	U		P

Color Before: Colourless Clarity Before: Clear Texture:

Color After: Colourless Clarity After: Clear Artifacts:

Comments:

Metals

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

KDR

Lab Name: Chemtech Consulting Group Contract: Construction Services Int.

Lab Code: CHEMED Case No.: Y2469 NRAS No.: Y2469 SDG NO.: Y2469

Matrix (soil/water): WATER Lab Sample ID: Y2469-16

Level (low/med): LOW Date Received: 04/25/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-43-9	Cadmium	166			P
7439-92-1	Lead	3.0	U		P

4

Color Before: Colourless Clarity Before: Clear Texture:

Color After: Colourless Clarity After: Clear Artifacts:

Comments:

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

KSR

Lab Name: Chemtech Consulting Group Contract: Construction Services Int.

Lab Code: CHEMED Case No.: Y2469 NRAS No.: Y2469 SDG NO.: Y2469

Matrix (soil/water): WATER Lab Sample ID: Y2469-17

Level (low/med): LOW Date Received: 04/25/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-43-9	Cadmium	3.8	~~J~~ U		P
7439-92-1	Lead	3.0	U		P

Color Before: Colourless Clarity Before: Clear Texture:

Color After: Colourless Clarity After: Clear Artifacts:

Comments:

Metals

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

RB-2

Lab Name: Chemtech Consulting Group Contract: Construction Services Int.

Lab Code: CHEMED Case No.: Y2469 NRAS No.: Y2469 SDG NO.: Y2469

Matrix (soil/water): WATER Lab Sample ID: Y2469-20

Level (low/med): LOW Date Received: 04/25/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-43-9	Cadmium	1.1	U	U	P
7439-92-1	Lead	3.0	U		P

Color Before: Colourless Clarity Before: Clear Texture:

Color After: Colourless Clarity After: Clear Artifacts:

Comments:

Metals

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

26

Lab Name: Chemtech Consulting Group Contract: Construction Services Int.

Lab Code: CHEMED Case No.: Y2469 NRAS No.: Y2469 SDG NO.: Y2469

Matrix (soil/water): WATER Lab Sample ID: Y2469-22

Level (low/med): LOW Date Received: 04/25/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-43-9	Cadmium	13.0			P
7439-92-1	Lead	3.0	U		P

J

Color Before: Colourless Clarity Before: Clear Texture:

Color After: Colourless Clarity After: Clear Artifacts:

Comments:

Metals

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

101

Lab Name: Chemtech Consulting Group Contract: Construction Services Int.

Lab Code: CHEMED Case No.: Y2469 NRAS No.: Y2469 SDG NO.: Y2469

Matrix (soil/water): WATER Lab Sample ID: Y2469-23

Level (low/med): LOW Date Received: 04/25/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-43-9	Cadmium	144			P
7439-92-1	Lead	3.0	U		P

J

Color Before: Colourless Clarity Before: Clear Texture:

Color After: Colourless Clarity After: Clear Artifacts:

Comments:

Metals

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

11

Lab Name: Chemtech Consulting Group Contract: Construction Services Int.

Lab Code: CHEMED Case No.: Y2469 NRAS No.: Y2469 SDG NO.: Y2469

Matrix (soil/water): WATER Lab Sample ID: Y2469-24

Level (low/med): LOW Date Received: 04/25/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-43-9	Cadmium	113			P
7439-92-1	Lead	3.0	U		P

J

Color Before: Colourless Clarity Before: Clear Texture:

Color After: Colourless Clarity After: Clear Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

102

Lab Name: Chemtech Consulting Group Contract: Construction Services Int.

Lab Code: CHEMED Case No.: Y2485 NRAS No.: Y2485 SDG NO.: Y2485

Matrix (soil/water): WATER Lab Sample ID: Y2485-01

Level (low/med): LOW Date Received: 04/26/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M	
7440-43-9	Cadmium	1.2	J	NE	P	J
7439-92-1	Lead	17.0			P	J

Color Before: Colourless Clarity Before: Clear Texture:

Color After: Colourless Clarity After: Clear Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

31

Lab Name: Chemtech Consulting Group Contract: Construction Services Int.

Lab Code: CHEMED Case No.: Y2485 NRAS No.: Y2485 SDG NO.: Y2485

Matrix (soil/water): WATER Lab Sample ID: Y2485-02

Level (low/med): LOW Date Received: 04/26/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M	
7440-43-9	Cadmium	1.5	J	NE	P	J
7439-92-1	Lead	20.6			P	J

Color Before: Colourless Clarity Before: Clear Texture:

Color After: Colourless Clarity After: Clear Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

32

Lab Name: Chemtech Consulting Group Contract: Construction Services Int.

Lab Code: CHEMED Case No.: Y2485 NRAS No.: Y2485 SDG NO.: Y2485

Matrix (soil/water): WATER Lab Sample ID: Y2485-03

Level (low/med): LOW Date Received: 04/26/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M	
7440-43-9	Cadmium	5.0	U	NE	P	U J
7439-92-1	Lead	3.0	U		P	

Color Before: Colourless Clarity Before: Clear Texture:

Color After: Colourless Clarity After: Clear Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

JDR

Lab Name: Chemtech Consulting Group Contract: Construction Services Int.

Lab Code: CHEMED Case No.: Y2485 NRAS No.: Y2485 SDG NO.: Y2485

Matrix (soil/water): WATER Lab Sample ID: Y2485-04

Level (low/med): LOW Date Received: 04/26/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-43-9	Cadmium	54.5		NE	P
7439-92-1	Lead	3.0	U		P

J

Color Before: Colourless Clarity Before: Clear Texture:

Color After: Colourless Clarity After: Clear Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

JS

Lab Name: Chemtech Consulting Group Contract: Construction Services Int.

Lab Code: CHEMED Case No.: Y2485 NRAS No.: Y2485 SDG NO.: Y2485

Matrix (soil/water): WATER Lab Sample ID: Y2485-07

Level (low/med): LOW Date Received: 04/26/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M	
7440-43-9	Cadmium	3.9	J	NE	P	J
7439-92-1	Lead	1.0	J		P	J

Color Before: Colourless Clarity Before: Clear Texture:

Color After: Colourless Clarity After: Clear Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

24

Lab Name: Chemtech Consulting Group Contract: Construction Services Int.

Lab Code: CHEMED Case No.: Y2485 NRAS No.: Y2485 SDG NO.: Y2485

Matrix (soil/water): WATER Lab Sample ID: Y2485-08

Level (low/med): LOW Date Received: 04/26/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M	
7440-43-9	Cadmium	5.0	U	NE	P	UJ
7439-92-1	Lead	3.0	U		P	

Color Before: Colourless Clarity Before: Clear Texture:

Color After: Colourless Clarity After: Clear Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

FB-1

Lab Name: Chemtech Consulting Group Contract: Construction Services Int.

Lab Code: CHEMED Case No.: Y2485 NRAS No.: Y2485 SDG NO.: Y2485

Matrix (soil/water): WATER Lab Sample ID: Y2485-09

Level (low/med): LOW Date Received: 04/26/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-43-9	Cadmium	5.0	U	NE	P
7439-92-1	Lead	3.0	U		P

UJ

Color Before: Colourless Clarity Before: Clear Texture:

Color After: Colourless Clarity After: Clear Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

23

Lab Name: Chemtech Consulting Group Contract: Construction Services Int.

Lab Code: CHEMED Case No.: Y2485 NRAS No.: Y2485 SDG NO.: Y2485

Matrix (soil/water): WATER Lab Sample ID: Y2485-10

Level (low/med): LOW Date Received: 04/26/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M	
7440-43-9	Cadmium	25.8		NE	P	J
7439-92-1	Lead	3.0	U		P	

Color Before: Colourless Clarity Before: Clear Texture:

Color After: Colourless Clarity After: Clear Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

30R

Lab Name: Chemtech Consulting Group Contract: Construction Services Int.

Lab Code: CHEMED Case No.: Y2485 NRAS No.: Y2485 SDG NO.: Y2485

Matrix (soil/water): WATER Lab Sample ID: Y2485-11

Level (low/med): LOW Date Received: 04/26/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M	
7440-43-9	Cadmium	163		NE	P	J
7439-92-1	Lead	3.0	U		P	

Color Before: Colourless Clarity Before: Clear Texture:

Color After: Colourless Clarity After: Clear Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

102

Lab Name: Chemtech Consulting Group Contract: Construction Services Int.

Lab Code: CHEMED Case No.: Y2485 NRAS No.: Y2485 SDG NO.: Y2485

Matrix (soil/water): WATER Lab Sample ID: Y2485-12

Level (low/med): LOW Date Received: 04/26/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M	
7440-43-9	Cadmium	5.0	U	NE	P	UJ
7439-92-1	Lead	3.0	U		P	

Color Before: Colourless Clarity Before: Clear Texture:

Color After: Colourless Clarity After: Clear Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

31

Lab Name: Chemtech Consulting Group Contract: Construction Services Int.

Lab Code: CHEMED Case No.: Y2485 NRAS No.: Y2485 SDG NO.: Y2485

Matrix (soil/water): WATER Lab Sample ID: Y2485-13

Level (low/med): LOW Date Received: 04/26/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-43-9	Cadmium	1.0	J	NE	P
7439-92-1	Lead	3.0	U		P

J

Color Before: Colourless Clarity Before: Clear Texture:

Color After: Colourless Clarity After: Clear Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

32

Lab Name: Chemtech Consulting Group Contract: Construction Services Int.

Lab Code: CHEMED Case No.: Y2485 NRAS No.: Y2485 SDG NO.: Y2485

Matrix (soil/water): WATER Lab Sample ID: Y2485-14

Level (low/med): LOW Date Received: 04/26/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M	
7440-43-9	Cadmium	5.0	U	NE	P	UJ
7439-92-1	Lead	3.0	U		P	

Color Before: Colourless Clarity Before: Clear Texture:

Color After: Colourless Clarity After: Clear Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

JDR

Lab Name: Chemtech Consulting Group Contract: Construction Services Int.

Lab Code: CHEMED Case No.: Y2485 NRAS No.: Y2485 SDG NO.: Y2485

Matrix (soil/water): WATER Lab Sample ID: Y2485-15

Level (low/med): LOW Date Received: 04/26/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M	
7440-43-9	Cadmium	60.8		NE	P	J
7439-92-1	Lead	3.0	U		P	

Color Before: Colourless Clarity Before: Clear Texture:

Color After: Colourless Clarity After: Clear Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

JS

Lab Name: Chemtech Consulting Group Contract: Construction Services Int.

Lab Code: CHEMED Case No.: Y2485 NRAS No.: Y2485 SDG NO.: Y2485

Matrix (soil/water): WATER Lab Sample ID: Y2485-18

Level (low/med): LOW Date Received: 04/26/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-43-9	Cadmium	3.0	J	NE	P
7439-92-1	Lead	3.0	U		P

J

Color Before: Colourless Clarity Before: Clear Texture:

Color After: Colourless Clarity After: Clear Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

24

Lab Name: Chemtech Consulting Group Contract: Construction Services Int.

Lab Code: CHEMED Case No.: Y2485 NRAS No.: Y2485 SDG NO.: Y2485

Matrix (soil/water): WATER Lab Sample ID: Y2485-19

Level (low/med): LOW Date Received: 04/26/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-43-9	Cadmium	5.0	U	NE	P
7439-92-1	Lead	3.0	U		P

UJ

Color Before: Colourless Clarity Before: Clear Texture:

Color After: Colourless Clarity After: Clear Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

FB-1

Lab Name: Chemtech Consulting Group Contract: Construction Services Int.

Lab Code: CHEMED Case No.: Y2485 NRAS No.: Y2485 SDG NO.: Y2485

Matrix (soil/water): WATER Lab Sample ID: Y2485-20

Level (low/med): LOW Date Received: 04/26/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-43-9	Cadmium	5.0	U	NE	P
7439-92-1	Lead	3.0	U		P

UJ

Color Before: Colourless Clarity Before: Clear Texture:

Color After: Colourless Clarity After: Clear Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

23

Lab Name: Chemtech Consulting Group Contract: Construction Services Int.

Lab Code: CHEMED Case No.: Y2485 NRAS No.: Y2485 SDG NO.: Y2485

Matrix (soil/water): WATER Lab Sample ID: Y2485-21

Level (low/med): LOW Date Received: 04/26/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-43-9	Cadmium	26.7		NE	P
7439-92-1	Lead	3.0	U		P

J

Color Before: Colourless Clarity Before: Clear Texture:

Color After: Colourless Clarity After: Clear Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

30R

Lab Name: Chemtech Consulting Group Contract: Construction Services Int.

Lab Code: CHEMED Case No.: Y2485 NRAS No.: Y2485 SDG NO.: Y2485

Matrix (soil/water): WATER Lab Sample ID: Y2485-22

Level (low/med): LOW Date Received: 04/26/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M	
7440-43-9	Cadmium	169		NE	P	J
7439-92-1	Lead	1.6	J		P	J

Color Before: Colourless Clarity Before: Clear Texture:

Color After: Colourless Clarity After: Clear Artifacts:

Comments:

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

22

Lab Name: Chemtech Consulting Group Contract: Construction Services Int.

Lab Code: CHEMED Case No.: Y2486 NRAS No.: Y2486 SDG NO.: Y2486

Matrix (soil/water): WATER Lab Sample ID: Y2486-01

Level (low/med): LOW Date Received: 04/26/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-43-9	Cadmium	7.3		N	P
7439-92-1	Lead	3.0	U		P

J

Color Before: Colourless Clarity Before: Clear Texture:

Color After: Colourless Clarity After: Clear Artifacts:

Comments:

Metals

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

OS

Lab Name: Chemtech Consulting Group Contract: Construction Services Int.

Lab Code: CHEMED Case No.: Y2486 NRAS No.: Y2486 SDG NO.: Y2486

Matrix (soil/water): WATER Lab Sample ID: Y2486-04

Level (low/med): LOW Date Received: 04/26/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-43-9	Cadmium	3.9	J	N	P
7439-92-1	Lead	388			P

J

Color Before: Colourless Clarity Before: Clear Texture:

Color After: Colourless Clarity After: Clear Artifacts:

Comments:

Metals

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS

Lab Name: Chemtech Consulting Group Contract: Construction Services Int.

Lab Code: CHEMED Case No.: Y2486 NRAS No.: Y2486 SDG NO.: Y2486

Matrix (soil/water): WATER Lab Sample ID: Y2486-05

Level (low/med): LOW Date Received: 04/26/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-43-9	Cadmium	10.6		N	P
7439-92-1	Lead	82.9			P

J

Color Before: Colourless Clarity Before: Clear Texture:

Color After: Colourless Clarity After: Clear Artifacts:

Comments:

Metals

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SD

Lab Name: Chemtech Consulting Group Contract: Construction Services Int.

Lab Code: CHEMED Case No.: Y2486 NRAS No.: Y2486 SDG NO.: Y2486

Matrix (soil/water): WATER Lab Sample ID: Y2486-06

Level (low/med): LOW Date Received: 04/26/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-43-9	Cadmium	149		N	P
7439-92-1	Lead	31.0			P

J

Color Before: Colourless Clarity Before: Clear Texture:

Color After: Colourless Clarity After: Clear Artifacts:

Comments:

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

22

Lab Name: Chemtech Consulting Group Contract: Construction Services Int.

Lab Code: CHEMED Case No.: Y2486 NRAS No.: Y2486 SDG NO.: Y2486

Matrix (soil/water): WATER Lab Sample ID: Y2486-08

Level (low/med): LOW Date Received: 04/26/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-43-9	Cadmium	7.2		N	P
7439-92-1	Lead	3.0	U		P

J

Color Before: Colourless Clarity Before: Clear Texture:

Color After: Colourless Clarity After: Clear Artifacts:

Comments:

Metals

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

OS

Lab Name: Chemtech Consulting Group Contract: Construction Services Int.

Lab Code: CHEMED Case No.: Y2486 NRAS No.: Y2486 SDG NO.: Y2486

Matrix (soil/water): WATER Lab Sample ID: Y2486-11

Level (low/med): LOW Date Received: 04/26/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M	
7440-43-9	Cadmium	4.2	J	N	P	J
7439-92-1	Lead	320			P	

Color Before: Colourless Clarity Before: Clear Texture:

Color After: Colourless Clarity After: Clear Artifacts:

Comments:

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS

Lab Name: Chemtech Consulting Group Contract: Construction Services Int.

Lab Code: CHEMED Case No.: Y2486 NRAS No.: Y2486 SDG NO.: Y2486

Matrix (soil/water): WATER Lab Sample ID: Y2486-12

Level (low/med): LOW Date Received: 04/26/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M	
7440-43-9	Cadmium	11.8		N	P	J
7439-92-1	Lead	13.0			P	

Color Before: Colourless Clarity Before: Clear Texture:

Color After: Colourless Clarity After: Clear Artifacts:

Comments:

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SD

Lab Name: Chemtech Consulting Group Contract: Construction Services Int.

Lab Code: CHEMED Case No.: Y2486 NRAS No.: Y2486 SDG NO.: Y2486

Matrix (soil/water): WATER Lab Sample ID: Y2486-13

Level (low/med): LOW Date Received: 04/26/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-43-9	Cadmium	156		N	P
7439-92-1	Lead	90.4			P

J

Color Before: Colourless Clarity Before: Clear Texture:

Color After: Colourless Clarity After: Clear Artifacts:

Comments:

APPENDIX C

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(516) 223-9761 • FAX (516) 223-0983

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

CHEMTECH PROJECT NO. Y2469

COC Number 064749

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: CST

ADDRESS: 918 Chesapeake Ave

CITY: Annapolis STATE: MD ZIP: 21403

ATTENTION: J. Austin Ferris

PHONE: 410-268-3077 FAX: 410-268-3077

CLIENT PROJECT INFORMATION

PROJECT NAME: NL

PROJECT NO.: co-0771 LOCATION:

PROJECT MANAGER: Jeff Moore

e-mail: JDFERRIS@CONTACTCSI.COM

PHONE: FAX:

CLIENT BILLING INFORMATION

BILL TO: PO#:

ADDRESS: Same

CITY: STATE: ZIP:

ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX: DAYS *

HARD COPY: STD DAYS *

EDD: DAYS *

* TO BE APPROVED BY CHEMTECH
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

☐ RESULTS ONLY ☒ USEPA CLP

☐ RESULTS + QC ☐ New York State ASP "B"

☐ New Jersey REDUCED ☐ New York State ASP "A"

☐ New Jersey CLP ☐ Other

☐ EDD FORMAT

ANALYSIS

1 VOCs; 2 Total Pb+Cd; 3 Diss Pb+Cd; 4 ~; 5 ~; 6 ~; 7 ~; 8 ~; 9 ~

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1 (A)	2 (B)	3 (B)	4	5	6	7	8	9	COMMENTS
1. 14, 1	NS	H_2O		X	4/24/07	1330	5	X	X	X							
2. 15, 2	ND			X	↓	1355	5	X	X	X							
3. 16, 3	KOR			X		1650	5	X	X	X							
4. 17, 4	KSR			X		1720	5	X	X	X							
5. 18, 5	17			X		2015	5	X	X	X							
6. 19, 6	16			X	↓	2040	5	X	X	X							
7. 20, 7	RB-2			X	4/25/07	0730	5	X	X	X							
8. 21, 8	12			X	↓	0935	5	X	X	X							
9. 22, 9	26			X	↓	0940	5	X	X	X							
10. 23, 13	101	↓		X	4/24/07	0000	5	X	X	X							

Preservatives: A-HCl B-HNO_3 C-H_2SO_4 D-NaOH E-ICE F-Other

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1.	4/25/07 1330	1.
RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:
2.		2.
RELINQUISHED BY:	DATE/TIME: 4:00 4-25-07	RECEIVED FOR LAB BY:
3.		3. SNEHAL MEHTA

Conditions of bottles or coolers at receipt: ☒ Compliant ☐ Non Compliant Cooler Temp. 4°C

MeOH extraction requires an additional 4 oz jar for percent solid.

Comments:

Ice in Cooler?: YES

Page 1 of 2

SHIPPED VIA: CLIENT: ☐ HAND DELIVERED ☐ OVERNIGHT CHEMTECH: ☒ PICKED UP ☐ OVERNIGHT

Shipment Complete: ☒ YES ☐ NO

CITY: Annapolis STATE: MD ZIP: 21403

ATTENTION: J. Dustin Ferris

PHONE: 410-268-3077 FAX: 410-268-0145

PROJECT MANAGER: Jeff Moore

e-mail: JDFERRIS@CONTRACTCI.com

PHONE: FAX:

CITY: STATE: ZIP:

ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX: ____ DAYS *

HARD COPY: STD DAYS *

EDD: ____ DAYS *

* TO BE APPROVED BY CHEMTECH
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

- ☐ RESULTS ONLY
- ☒ USEPA CLP
- ☐ RESULTS + QC
- ☐ New York State ASP "B"
- ☐ New Jersey REDUCED
- ☐ New York State ASP "A"
- ☐ New Jersey CLP
- ☐ Other ____
- ☐ EDD FORMAT ____

ANALYSIS

1	2	3	4	5	6	7	8	9
VOCs	Total Pb+Cd	Diss Pb+Cd						

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1	2	3	4	5	6	7	8	9	COMMENTS
								A	B	B							← Specify Preservatives A–HCl B–HNO_3 C–H_2SO_4 D–NaOH E–ICE F–Other
1 24/11	11	H_2O		X	4/25/07	1100	5	X	X	X							
2 25/12	BR			X	↓	1145	5	X	X	X							
3. 13	TB-3	↓		X	Lab Collected		4	X									
4.																	
5.																	
6.																	
7.																	
8.																	
9.																	
10.																	

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1.	4/25/07 1330	1.
RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:
2.		2.
RELINQUISHED BY:	DATE/TIME: 4:00	RECEIVED FOR LAB BY:
3.	4-25-07	3.

Conditions of bottles or coolers at receipt: ☒ Compliant ☐ Non Compliant

MeOH extraction requires an additional 4 oz jar for percent solid.

Comments:

Cooler Temp. 4°C

Ice in Cooler?: YES

Page 2 of 2

SHIPPED VIA: CLIENT: ☐ HAND DELIVERED ☐ OVERNIGHT
CHEMTECH: ☒ PICKED UP ☐ OVERNIGHT

Shipment Complete: ☒ YES ☐ NO

Revision 4/2005

WHITE - CHEMTECH COPY FOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY

5525

CHEMTECH

CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

CHEMTECH PROJECT NO. Y2485

COC Number 064683

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: CSI

ADDRESS: 918 Chesapeake Ave

CITY: Annapolis STATE: MD ZIP: 21403

ATTENTION: J. Justin Ferris

PHONE: 410-268-3077 FAX: 410-268-0145

CLIENT PROJECT INFORMATION

PROJECT NAME: NL

PROJECT NO.: 00-0771 LOCATION:

PROJECT MANAGER: Jeff Moore

e-mail: JOFERRIS@CONTACTCSI.COM

PHONE: FAX:

CLIENT BILLING INFORMATION

BILL TO: PO#:

ADDRESS: Same

CITY: STATE: ZIP:

ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX: DAYS *

HARD COPY: STD DAYS *

EDD: DAYS *

* TO BE APPROVED BY CHEMTECH
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

- ☐ RESULTS ONLY
- ☐ RESULTS + QC
- ☐ New Jersey REDUCED
- ☐ New Jersey CLP
- ☐ EDD FORMAT
- ☒ USEPA CLP
- ☐ New York State ASP "B"
- ☐ New York State ASP "A"
- ☐ Other

ANALYSIS

1 VOCs; 2 Total Pb+Cd; 3 Diss Pb+Cd; 4 5 6 7 8 9

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1 (A)	2 (B)	3 (B)	4	5	6	7	8	9	COMMENTS
1. 1, 1	102	H_2O		X	4/25/07	0000	5	X	X	X							
2. 2, 2	31					1415	5	X	X	X							
3. 3, 3	32					1425	5	X	X	X							
4. 4, 5, 6, 12, 15, 16	JOR					1610	15	X	X	X							MS/MSD Vol
5. 17, 7	JS					1740	5	X	X	X							
6. 18, 8	24					1745	5	X	X	X							
7. 19, 9	FB-1				4/26/07	0850	5	X	X	X							
8. (A)	22					0905	15	X	X	X							MS/MSD Vol
9. 20, 10	23					0940	5	X	X	X							
10. 21, 11	30R					1045	5	X	X	X							

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1.	4/26/07 14:10	1.
RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:
2.		2.
RELINQUISHED BY:	DATE/TIME:	RECEIVED FOR LAB BY:
3.	4/27/07 16:20	3.

Conditions of bottles or coolers at receipt: ☒ Compliant ☐ Non Compliant Cooler Temp. 4°C

MeOH extraction requires an additional 4 oz jar for percent solid.

Ice in Cooler?: Yes

Comments:

(A) Sample ID = 22 is logged under Y2486 (B)

Page 1 of 2

SHIPPED VIA: CLIENT: ☐ HAND DELIVERED ☐ OVERNIGHT
CHEMTECH: ☒ PICKED UP ☐ OVERNIGHT

Shipment Complete: ☒ YES ☐ NO

CHEMTECH
CHAIN OF CUSTODY RECORD

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(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

CHEMTECH PROJECT NO. Y2486
COC Number 064683

CLIENT INFORMATION (REPORT TO BE SENT TO:)
COMPANY: CSI
ADDRESS: 918 Chesapeake Ave
CITY: Annapolis STATE: MD ZIP: 21403
ATTENTION: J. Dustin Ferris
PHONE: 410-268-3077 FAX: 410-268-0145

CLIENT PROJECT INFORMATION
PROJECT NAME: NL
PROJECT NO.: 00-0771 LOCATION:
PROJECT MANAGER: Jeff Moore
e-mail: JDFERRIS@CONTACTCSI.COM
PHONE: FAX:

CLIENT BILLING INFORMATION
BILL TO: PO#:
ADDRESS: Same
CITY: STATE: ZIP:
ATTENTION: PHONE:

DATA TURNAROUND INFORMATION
FAX: DAYS *
HARD COPY: STD DAYS *
EDD: DAYS *
* TO BE APPROVED BY CHEMTECH
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION
☐ RESULTS ONLY ☒ USEPA CLP
☐ RESULTS + QC ☐ New York State ASP "B"
☐ New Jersey REDUCED ☐ New York State ASP "A"
☐ New Jersey CLP ☐ Other
☐ EDD FORMAT

ANALYSIS
1: VOCs; 2: Total Pb+Cd; 3: TCLP Pb+Cd; 4–9:

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1 (A)	2 (B)	3 (B)	4	5	6	7	8	9	COMMENTS
1.	10Z (R)	H_2O		X	4/25/07	0000	5	X	X	X							
2.	31 (R)					1415	5	X	X	X							
3.	32 (R)					1425	5	X	X	X							
4.	JOR (R)					1610	15	X	X	X							
5.	J5 (R)					1740	5	X	X	X							MS/MSD VOA
6.	24 (R)					1745	5	X	X	X							
7. (R)	FB-1 (R)				4/26/07	0850	5	X	X	X							
8. 1,2,3	22					0905	15	X	X	X							MS/MSD VOA
9. 8,9,10	23 (R)					0940	5	X	X	X							
10.	30R (R)					1045	5	X	X	X							

Copy Original Documents are Included in CSF Y2485
Signature
4/26/07 Date

← Specify Preservatives
A–HCl B–HNO_3
C–H_2SO_4 D–NaOH
E–ICE F–Other

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1. Jeff	4/26/07 14:10	1. T. Dotson
RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:
2.		2.
RELINQUISHED BY:	DATE/TIME:	RECEIVED FOR LAB BY:
3. T. Dotson	4/26/07 16:20	3. SHEHAL

Conditions of bottles or coolers at receipt: ☒ Compliant ☐ Non Compliant Cooler Temp. 4°C
MeOH extraction requires an additional 4 oz jar for percent solid.
Comments: (R) all samples except samples 22, are logged under Y2485 Ice in Cooler?: Yes

Page 1 of 2

SHIPPED VIA: CLIENT: ☐ HAND DELIVERED ☐ OVERNIGHT
CHEMTECH: ☒ PICKED UP ☐ OVERNIGHT

Shipment Complete: ☒ YES ☐ NO

CHEMTECH
CHAIN OF CUSTODY RECORD

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(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

CHEMTECH PROJECT NO. Y2486

COC Number 064680

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: CST

ADDRESS: 918 Chesapeake Ave

CITY: Annapolis STATE: MD ZIP: 21403

ATTENTION: J. Dustin Ferris

PHONE: 410-268-3077 FAX: 410-268-0145

CLIENT PROJECT INFORMATION

PROJECT NAME: NL

PROJECT NO.: 00-0771 LOCATION:

PROJECT MANAGER: Jeff Moore

e-mail: JDFERRIS@COMPACTCST.COM

PHONE: FAX:

CLIENT BILLING INFORMATION

BILL TO: PO#:

ADDRESS: Same

CITY: STATE: ZIP:

ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX: DAYS *

HARD COPY: STD DAYS *

EDD: DAYS *

* TO BE APPROVED BY CHEMTECH
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

- ☐ RESULTS ONLY
- ☐ RESULTS + QC
- ☐ New Jersey REDUCED
- ☐ New Jersey CLP
- ☐ EDD FORMAT
- ☒ USEPA CLP
- ☐ New York State ASP "B"
- ☐ New York State ASP "A"
- ☐ Other

ANALYSIS

1 VOCs; 2 Total Pb+Cd; 3 Diss Pb+Cd; 4 5 6 7 8 9

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1 (A)	2 (B)	3 (B)	4	5	6	7	8	9	COMMENTS
1	05	H_2O		X	4/26/07	1105	5	X	X	X							
2	55	↓		↓	↓	1330	5	X	X	X							
3	50	↓		↓	↓	1330	5	X	X	X							
4	TB-4	H_2O		X	4/26/07	0810	3	X									
5																	
6																	
7																	
8																	
9																	
10																	

← Specify Preservatives
A-HCl B-HNO_3 C-H_2SO_4 D-NaOH E-ICE F-Other

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1.	4/26/07 14:10	1.
RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:
2.		2.
RELINQUISHED BY:	DATE/TIME: 4/26/07 16:20	RECEIVED FOR LAB BY:
3.		3.

Conditions of bottles or coolers at receipt: ☒ Compliant ☐ Non Compliant Cooler Temp. 4°C

MeOH extraction requires an additional 4 oz jar for percent solid.

Comments:

Ice in Cooler?: Yes

Page 2 of 2

SHIPPED VIA: CLIENT: ☐ HAND DELIVERED ☐ OVERNIGHT
CHEMTECH: ☒ PICKED UP ☐ OVERNIGHT

Shipment Complete: ☒ YES ☐ NO

APPENDIX D

2815 COVERED BRIDGE ROAD, MERRICK, NEW YORK 11566
(516) 223-9761 • FAX (516) 223-0983

Premier Environmental Services

July 10, 2007

Project Manager
Chemtech Consulting Group
284 Sheffield Street
Mountainside, NJ 07092

Dear Mr. Rudka,

Premier Environmental Services is performing the data review for CSI for samples collected at the NL Industries Site. The samples were collected in April, 2007. Below are questions associated with the cited data set. I have organized the questions for ease of review by either the project manager or QA Officer.

Project Y2469 – Total and Dissolved Cd, and Pb analyses

Page 61 of the data report lists the IDL of Lead only. Cadmium was not listed on this page. Please manually add the Cadmium to this form and fax back.

Project Y2485 – Total and Dissolved Cd, and Pb analyses

Six (6)CRDL standards are associated with this data set. CRI05 (15:03) had a 0% recovery for Cadmium and a 202.4 % recovery of Lead. Did the analyst make any note of this CRI in the log. Although the EPA has not set criteria for this standard-this standard effects the validation of data and the usability of data. Can you have the analyst review this standard and provide comment.

Thank you in advance for your prompt response to these data issues. If there are any additional questions associated with this data set, please do not hesitate to contact me at 516-223-9761.

Sincerely,

Renee Cohen

Cc: Dustin Ferris - CSI

2815 COVERED BRIDGE ROAD, MERRICK, NEW YORK 11566
(516) 223-9761 • FAX (516) 223-0983

CHEMTECH

facsimile transmittal

DATE 07/18/07 NUMBER OF PAGES 2

NAME: Renee Cohen FAX# 516-223-1983

COMPANY: Faemiles Env. RE: Inquiries for Y2469, Y2485 data

SENT BY :

Krupa Dubey

908-789-8900 ext 208

COMMENT: Y2469- corrected IDL page is enclosed. Y2485 CK105 was checked. No corrective action was taken as all other standards pass criteria and ELA has no criteria for CKS evaluation

PROJECT # _____

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

INSTRUMENT DETECTION LIMITS

Client:	Construction Services Int.	**Project:**	
Instrument ID:	P1	**SDG No.:**	Y2469

Matrix	Parameter	Waveleanth	MDL	CRDL	Units
LIQUID					
	Lead	220.35	1.0	3	ug/L
	Cadmium	226.50	1.0	5	ug/L

00061

9
7/16/17

APPENDIX C

Historic Lead and Cadmium Distribution

Table C-1
Mass of Lead in Groundwater Calculations
NL Superfund Site, Pedricktown, New Jersey

Avg Concentration (ppb)	Avg Well Depth (ft)	Avg Depth to Water (ft)	Height (ft)	Area (ft^2)	Volume (ft^3)	Assume 30% Porosity	Convert to Liters	Convert to µg	Convert to lbs
MASS CALCULATIONS:									
2007									
101.62	22.37	6.00	16.38	128900.22	703623.3342	211087.0003	5977983.848	607482718.6	1.3394994
1998*									
95.72	23.43	8.12	15.31	325862.47	1662767.564	498830.2691	14126873.22	1352177215	2.9815508
1983*									
1152.86	30.04	6.82	23.22	2112170.63	16347865.41	4904359.623	138891464.5	1.60122E+11	353.0690474

Note: The depth to water for the 1983 data was not available. An average depth to water from the three other sample sets shown was used.
* Calculation presented for reference purposes only.

Table C-2
Mass of Cadmium in Groundwater Calculations
NL Industries Superfund Site, Pedricktown, New Jersey

Avg Concentration (ppb)	Avg Well Depth (ft)	Avg Depth to Water (ft)	Height (ft)	Area (ft^2)	Volume (ft^3)	Assume 30% Porosity	Convert to Liters	Convert to µg	Convert to lbs
MASS CALCULATIONS:									
2007									
56.59	29.04	5.55	23.49	860174.75	6734021.393	2020206.418	57212245.75	3237831695	7.1394189
1998*									
118.74	27.36	8.16	19.20	1047900.3	6706964.959	2012089.488	56982374.29	6765999458	14.9190288
1988*									
342.2	31.00	6.35	24.65	1252536.23	10293342.74	3088002.821	87452239.9	29926156495	65.9871751

* Calculation presented for reference purposes only.

Table C-3
Historical Analytical and Well Data Used for Mass Calculations
NL Industries Superfund Site, Pedricktown, New Jersey

2007 - Cd

Well	Conc	Depth to Water	Depth
11	110	4.08	54.1
22	7.3	3.16	23.1
23	25.8	6.54	34.25
24	0	12.79	74.6
26	12.6	4.91	21.8
27	8.5	6.17	15
28	151	6.7	30
30R	163	5.97	28.71
JDR	54.5	5.49	27.3
JS	3.9	5.41	15.5
KDR	141	2.45	27.35
KS	7.8	2.5	17
OS	3.9	6.37	21.22
SD	149	5.72	29.25
SS	10.6	5.03	16.4
average:	56.59	5.55	29.04

1998 - Cd

Well	Conc	Depth to Water	Depth
11	240	5.27	54.1
22	92	10.01	23.1
23	12.9	9.78	34.25
26	41.6	11.48	21.8
27	14.8	11.37	15
28	383	11.12	30
30	327	Not Available	28.71
JDR	200	7.78	27.3
BR	16	5.25	39
JS	3.9	7.68	15.5
OS	4.7	5	21.22
SD	185	7.07	29.25
SS	22.7	6.05	16.4
average:	118.74	8.16	27.36

1988 - Cd

Well	Conc	Depth to Water	Depth
11	134	5.94	54.1
JDR	103	6.56	27.3
KDR	291	6.49	27.35
KS	173	6.56	17
SD	1010	6.18	29.25
average:	342.20	6.35	31.00

Table C-3
Historical Analytical and Well Data Used for Mass Calculations
NL Industries Superfund Site, Pedricktown, New Jersey

2007 - Pb

Well	Conc	Depth to Water	Depth
27	6.2	6.17	15
28	0	6.7	30
OS	388	6.37	21.22
SD	31	5.72	29.25
SS	82.9	5.03	16.4
average:	101.62	6.00	22.37

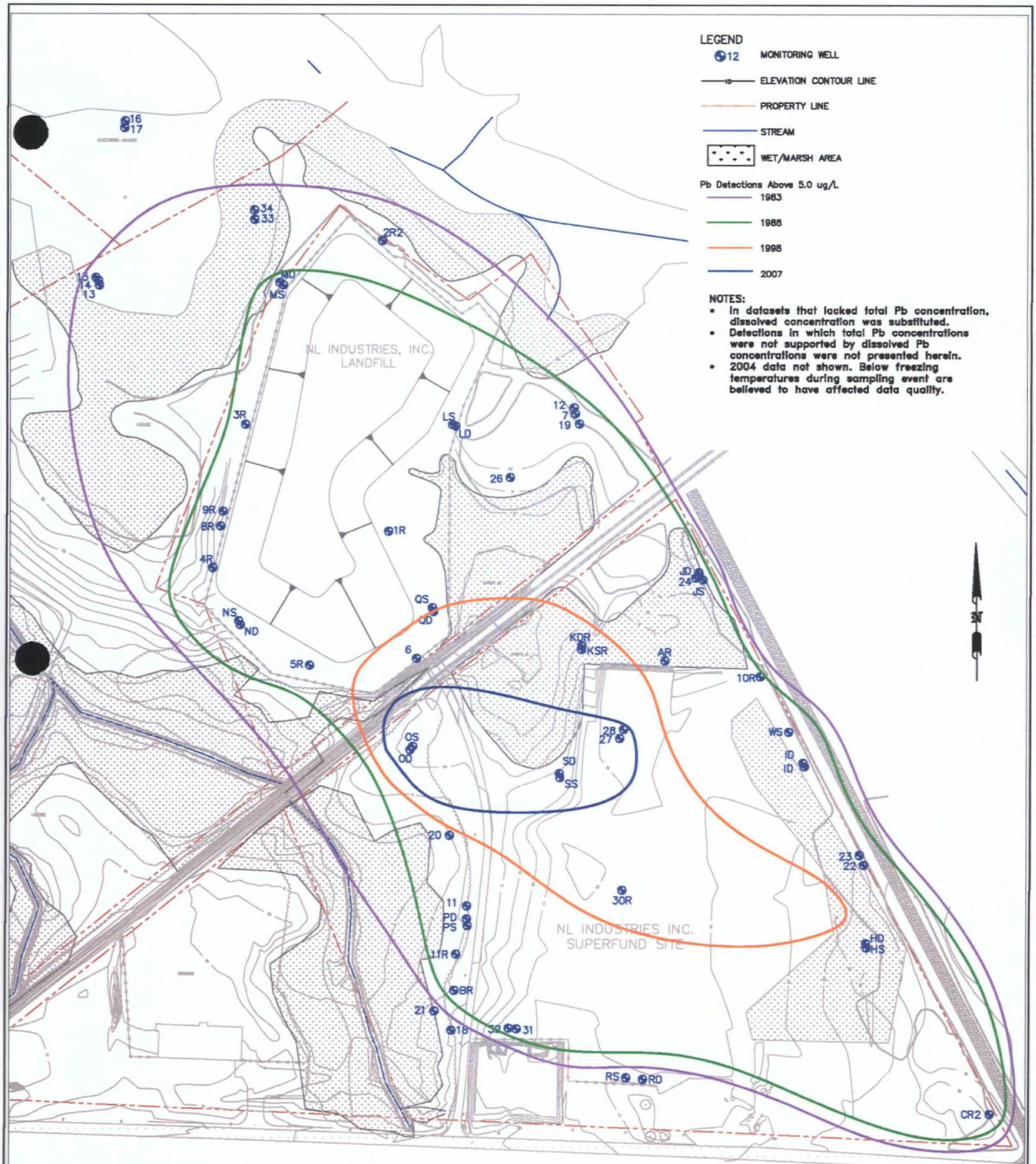
1998 - Pb

Well	Conc	Depth to Water	Depth
27	19.9	11.37	15
28	15.4	11.12	30
30	37.4	Not Available	28.71
OS	476	5	21.22
SD	25.6	7.07	29.25
SS	0	6.05	16.4
average:	95.72	8.12	23.43

1983 - Pb

Well	Conc	Depth to Water	Depth
11	460	Not Available	54.1
JDR	390	Not Available	27.3
KDR	2560	Not Available	27.35
KS	270	Not Available	17
SD	2960	Not Available	29.25
NS	1180	Not Available	16.3
BR	250	Not Available	39
average:	1152.86	6.82	30.04

Note: The depth to water for the 1983 data was not available. An average depth to water from the three other sample sets shown was used. Data prior to 2007 presented for reference purposes only.



Sources:

- CSI Environmental – Groundwater Monitoring Report
- GeoSyntec – Phase II Technical Memorandum, 2000
- O'Brian & Gere – Remedial Investigation, 1990
- Entact – Remedial Action Report, 2003

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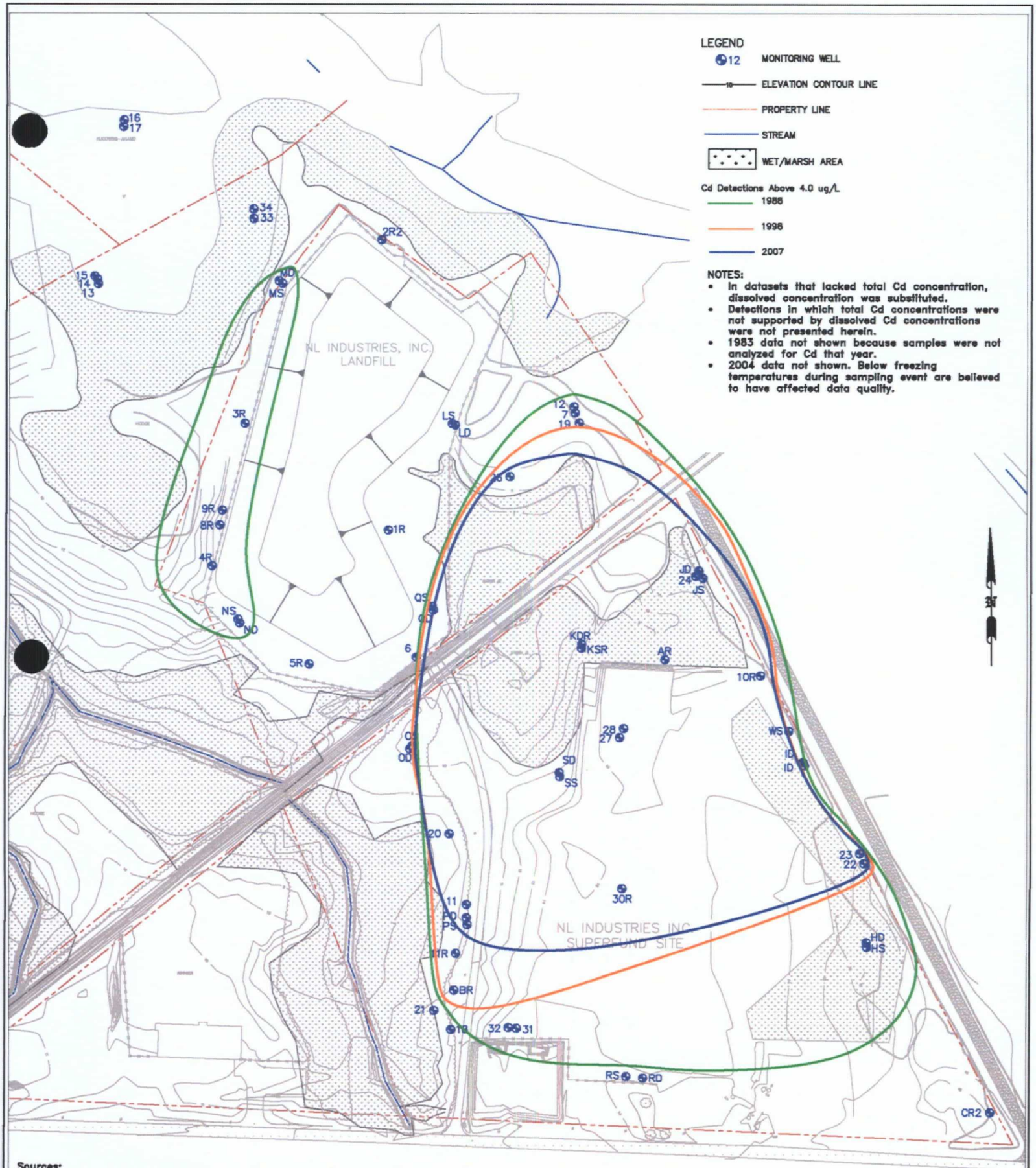
Historical Extent of Pb Concentrations in Groundwater Greater Than New Jersey Groundwater Quality Standard

NL Industries Superfund Site
Pedricktown, NJ

FIGURE
C-1



Sources:

- CSI Environmental – Groundwater Monitoring Report
- GeoSyntec – Phase II Technical Memorandum, 2000
- O'Brian & Gere – Remedial Investigation, 1990
- Entact – Remedial Action Report, 2003

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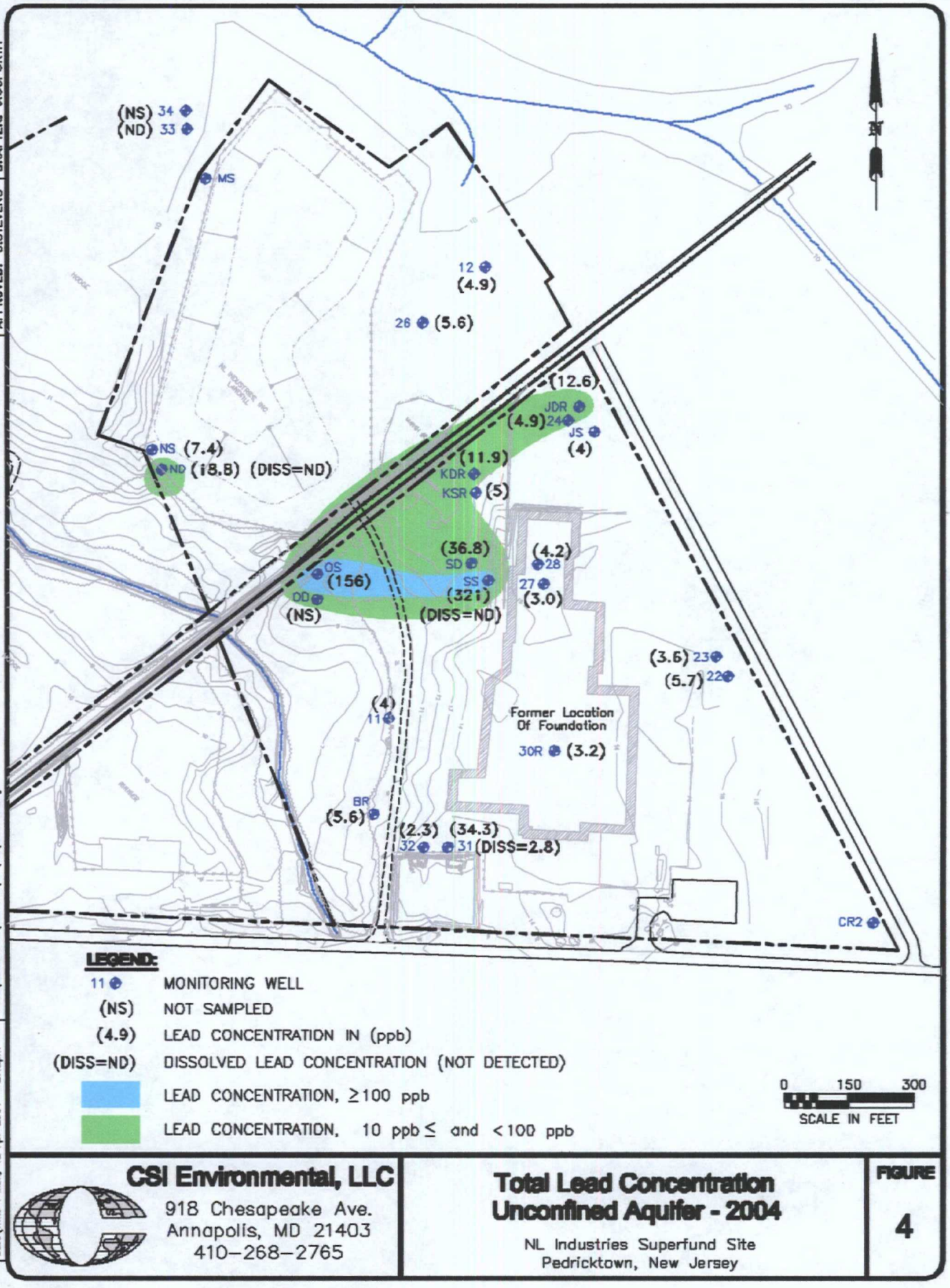
Historical Extent of Cd Concentrations in Groundwater Greater Than New Jersey Groundwater Quality Standard

NL Industries Superfund Site
Pedricktown, NJ

FIGURE
C-2

APPENDIX D

Figures 4 and 5 from the 2004 Groundwater Monitoring Report



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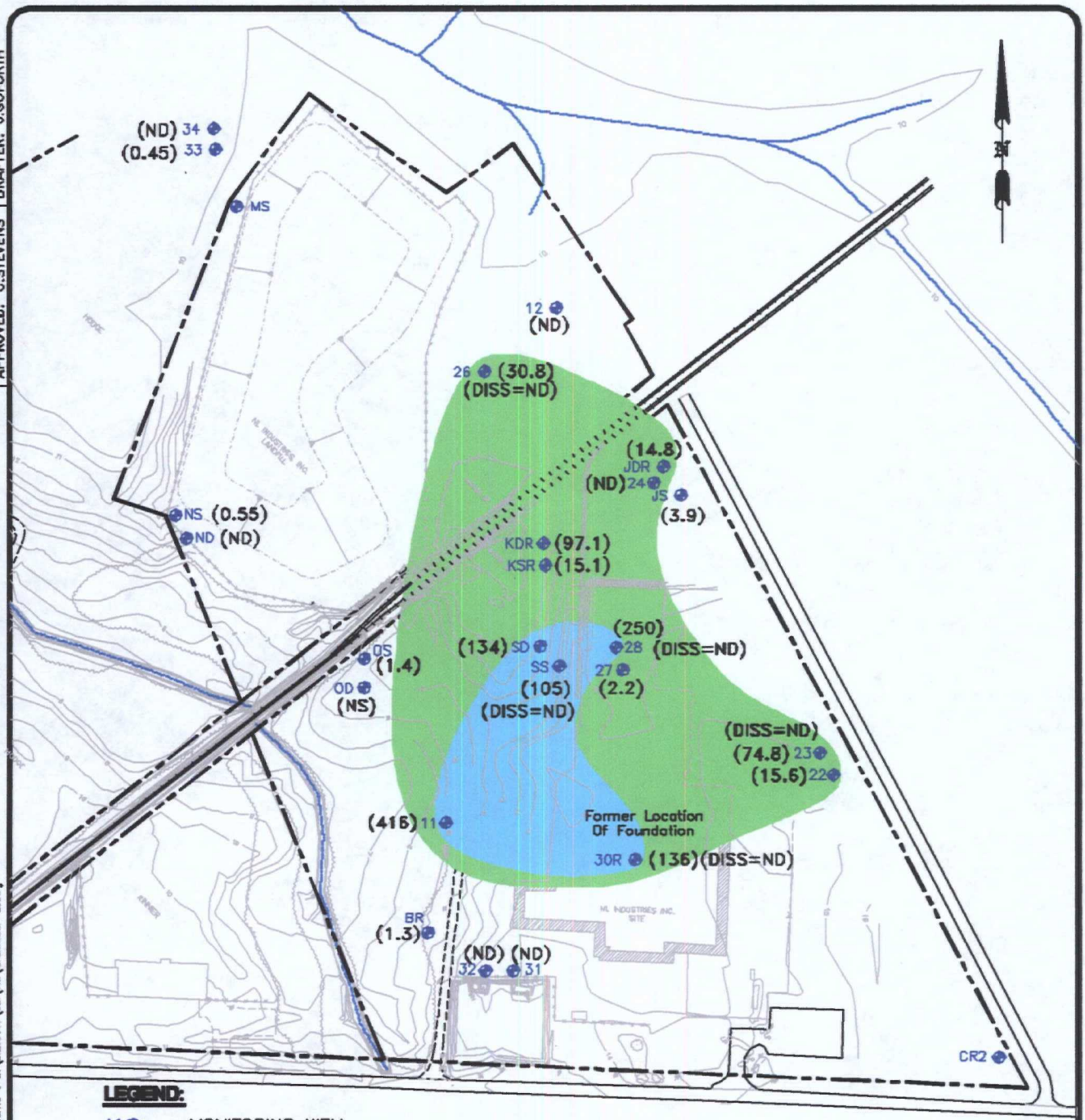
Total Lead Concentration Unconfined Aquifer - 2004

NL Industries Superfund Site
Pedricktown, New Jersey

FIGURE
4



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Total Cadmium Concentration Unconfined Aquifer - 2004

NL Industries Superfund Site
Pedricktown, New Jersey

FIGURE
5